

# PHILADELPHIA MEDICAL TIMES.

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## ORIGINAL LECTURES.

### REMARKS ON HYPERIDROSIS AND BROMIDROSIS.

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(Reported for the *Philadelphia Medical Times*.)

**H**YPERIDROSIS is an affection in which there is an abnormal functional activity of the sweat-glands. The profuse perspiration which follows vigorous exercise or exposure to a high temperature is purely physiological in character and consistent with health. The colliquative sweating of phthisis, and also that which is observed in rheumatism, intermittent fever, and other febrile affections, although, strictly speaking, an instance of hyperidrosis, is usually not so considered when viewing the condition from a dermatological stand-point. Many who are otherwise in apparently perfect health sweat excessively without apparent provocation, and are annoyed thereby to a greater or less degree. Corpulent people, especially in summer-time, are especially prone to a mild degree of hyperidrosis, but some who are not particularly well nourished suffer in like manner and at various seasons of the year. The affection may occur in an acute form and subside in a short time, the obscure cause having ceased to act; but generally it is extremely chronic, as the disposition to the excessive secretion of sweat is not easily subdued.

Hyperidrosis may be general (*H. universalis*), or local in its manifestation (*H. localis*).

Occurring over the whole surface of the body, it is not usually severe, but when limited to certain parts it is much more noticeable, and constitutes a not uncommon and an extremely disagreeable affection. The palms, soles, and axillæ are the parts which are most apt to be the seat of the trouble, but the face and the genital region are not infrequently affected.

In rare cases, hyperidrosis occurs in a unilateral form. One side of the head, or one of the extremities, or even one-half of the entire body, may be bathed in perspiration, while the opposite side retains its

natural condition. A story is told of a celebrated young comedian who was subject to unilateral hyperidrosis of the face. One night he appeared upon the stage as an old man, the face being made up to suit the part. As the play proceeded, the merriment of the audience became excessive, and the unusual and seemingly uncalled-for shouts of laughter which greeted his acting surprised and perplexed him. On retiring behind the scenes, he found that the unilateral perspiration had washed the paint from one side of his face, which had presented to the audience the appearance of wrinkled age upon one half and blooming youth upon the other.

Hyperidrosis of the hands is not only annoying to the patient himself, but to those whom the social custom requires him to greet with a shake of the hand. A kid glove cannot be worn in certain cases without becoming immediately soaked through by the increased secretion, and often the affection prevents the sufferer from following any occupation involving the handling of fine textures. Frequent wiping of the hands does little good, and in social intercourse the consciousness that the hands are unpresentable and the consequent anxiety of mind tend only to intensify the unfortunate condition.

Hyperidrosis of the feet is often associated with a similar condition of the hands, but either may exist alone. When the feet are the seat of the affection, the stockings, however frequently changed, are kept moistened by the secretion, and even the leather covering of the feet becomes soaked in time. A disagreeable odor is usually occasioned by the chemical change which the secretion undergoes.

*Treatment.*—The predisposing causes of hyperidrosis should be diligently sought for in every case, and removed if possible. Nervous derangement and an impaired circulation are frequently underlying conditions which demand the most careful hygienic treatment. Among the drugs which have been recommended as capable of producing beneficial results in this affection are atropia and ergot. Small doses of jaborandi have also been employed with good effect in both local and general hyperidrosis. As it is impossible in many cases to determine the precise cause of the disorder, we are generally forced to depend largely upon external applications,



many of which give immediate relief and in time subdue the excessive secretion. When the sweating is general, baths containing sea-salt or carbolic acid may be employed, or portions of the body rubbed successively with a soft sponge dipped in the following lotion:

Sulphate of quinine, 5 parts;  
Alcohol to 500 parts.—M.

In hyperidrosis of the axilla or genital region, the skin may be bathed with a strong solution of tannin or alum, and, after careful drying, the following powder dusted over the surface:

Salicylic acid, 3 parts;  
Starch, 10 "  
Talc powder to 100 " —M.

For the hands and feet a similar plan of treatment is useful. Another excellent remedy is the subnitrate of bismuth, rubbed well into the skin after bathing, or dusted over the inside of the gloves or stockings. Hebra advised a plan of treatment which, if properly carried out, usually affords immunity from the annoying secretion for a considerable time, if it does not effect a cure. This plan consists in spreading diachylon ointment upon pieces of linen, with which the fingers and toes, as well as the rest of the hands and feet, are carefully enveloped. This dressing is to be reapplied twice daily for a week or two, the hands not being washed in the mean time. The application causes an exfoliation of the epidermis, leaving the skin soft and comparatively dry.

**BROMIDROSIS** is an affection in which the perspiration is characterized by a peculiar, and usually an extremely disagreeable, odor. The normal perspiration has always a slight odor, from admixture with the sebaceous secretion, although this may not be perceptible to the average sense of smell, except in summer, or after violent exercise. In disease, the perspiration is frequently changed in character, and rheumatism, intermittent fever, scurvy, and other affections have been supposed by some to have each its distinct and characteristic odor. Indeed, some have claimed that the odor emanating from various skin diseases, notably smallpox, scabies, and syphilis, might be utilized as a basis of diagnosis. Certain persons whose skin is perfectly free from disease and whose general condition is good exhale from their bodies a peculiar odor which seems to be natural to them. It may be constant, or occur only

in connection with mental excitement or other unusual conditions. The odor is usually indescribable, although it has been likened in certain instances to "violets," "pineapple," etc.

In bromidrosis the secretion may exist in normal amount, or it may be in excess. The latter is commonly the case upon the feet and in the axilla, in which case we have simply hyperidrosis with a fetid odor. This odor may not be due to any change in the composition of the perspiratory secretion, but usually results largely from the decomposition of the sweat which has soaked into the clothing of the part. In bromidrosis of the feet even the shoes may become saturated with the foul secretion.

The peculiar odor may also be due, in great part, to a peculiar secretion of the sebaceous glands, which becomes mingled with the perspiration. As the fetid secretion of bromidrosis is more irritating to the skin than a simple excess of perspiration, we find in this disease a marked tendency for the skin, especially of the feet, to become macerated and tender. Upon the soles the epidermis is always sodden, and often peels off in large masses, leaving an inflamed and often eczematous condition, through which locomotion is seriously impaired.

**Treatment.**—The general treatment of bromidrosis is substantially the same as that of hyperidrosis, since whatever lessens the amount of the secretion tends to diminish the unpleasant odor. The natural tendency of some persons to secrete fatty acids, which give to the mingled sweat and sebum a pungent, if not a disagreeable, odor, is extremely difficult to overcome. The more severe forms of fetid sweating are, fortunately, more amenable to treatment, and are often checked by the adoption of such measures as promote the general health of the person affected. In the mean time, a resort must be had to local and more or less palliative measures. Lotions and dusting-powders of an antiseptic character have been found most useful in bromidrosis, especially when the disease involves the feet, as it is most apt to do.

For bathing the skin a one-per-cent. solution (five grains to the ounce) of chloral or permanganate of potash is both cleanly and beneficial. It should be applied with as little friction as possible and allowed to dry upon the skin, or the excess of



moisture may be removed by the pressure of a soft warm cloth. Ainsworth recommends the application of the following powder:

Dried alum, 45 parts;  
Salicylic acid, 5 parts.—M.

Thin, of London, after a careful study of the subject of bromidrosis, found the moisture which collects in a patient's stocking to be of an alkaline reaction and swarming with bacteria. This fluid acts as an irritant to the skin and greatly aggravates the disease. As a parasiticide application, and one calculated to allay the irritation of the skin, he recommends the use of boric acid. The stockings should be changed twice daily, and the stocking-feet placed for some hours in a jar containing a saturated solution of boric acid. They are then dried, and may be worn again,—the odor having disappeared.

To prevent the fetid perspiration soaking into the soles of the shoes, and thus giving rise to a permanent stench, cork soles are to be worn during the day, and soaked overnight, like the stocking-feet, in the jar of boric acid.

## ORIGINAL COMMUNICATIONS.

### AN INSTRUCTIVE CASE OF SYPHILIS.

BY HUGO ENGEL, M.D.

THE following more than usually interesting case of syphilis, proving the possibility of a radical cure of the disease even after the outbreak of dangerous symptoms denoting syphilitic affection of the brain, has been under my observation for the last eight years. As the case demonstrates beyond a doubt that this malady can be cured, and that this can be so thoroughly effected as to render the individual liable to a second infection, and as the case with regard to the similarity of certain symptoms during the first and second attack of secondary syphilis, and with regard to the total disappearance of grave phenomena, probably is a unique one, for fear that its history might be looked upon with suspicion by more than one, I sent the patient to my friend Dr. J. M. Barton for examination. This physician, who, during a period of twelve years as assistant to our venerated Professor S. D. Gross

and as chief of his clinic, and as visiting surgeon to two of our largest hospitals, has enjoyed a large experience, fully coincided in my view of the case. Then Dr. J. F. Edwards, the assistant editor of the *Medical and Surgical Reporter*, had the opportunity of watching the progress of the case during the whole time the patient was under my attendance, so that, no matter how incredible some parts of the following history may seem, their actual occurrence cannot be disputed. One may err, but it can scarcely be assumed that three will do so, and the less if one of them, undoubtedly a competent authority, saw the patient but for the purpose of critical examination. After this introduction, which the importance of the case necessitates, I will now give its clinical history.

April 1, 1876, I was sent for in a hurry to come at once to a wholesale notion-store in the lower part of our city, where a salesman was said to have been seized by apoplexy. On my arrival I found J. F. C., æt. 24, in an unconscious condition. While talking with the book-keeper of the store, he had suddenly fallen down. They had observed convulsive motions extending over the whole body, but mainly noticeable on the left side. I saw him about twenty minutes later. His face looked pale; there was slightly stertorous breathing; the right pupil did not at all react to light, the left very sluggishly. The left arm and leg were the seat of convulsive twitchings. The pulse was slow and irregular, the temperature in the axilla  $97\frac{3}{4}^{\circ}$  F.

There was no sign indicating the presence of morbus Brightii; the heart apparently was perfectly sound. These facts and the youth of the patient spoke against apoplexy. From the brother of the patient I heard that J. F. C. had never suffered from epileptic fits, and that to his knowledge he also had not met with any serious accident, as a fall or a blow on the head. This history, the youth of the patient, and the absence of any plausible cause at once caused me to think of syphilis. I now also detected the peculiar yellowish-dirty color of the skin over the brows, and, on further examination, I discovered an eczematous eruption extending over the whole anterior surface of the trunk and indicating by its copper-color its luetic origin. My diagnosis, therefore, was syphilitic affection of the brain.

I prescribed for the patient, and told his



brother that he would soon come to, and that he should at once send for the physician who had attended him the last time, by which I meant, when he had the chancre. In the afternoon I received notice to come to the patient's house. I found him in bed, but comparatively well. It was there that he gave me the following history of himself.

About eight months before, he had noticed a sore—only one—on his penis. He at once went to a homœopath, who attended him for six weeks, when he discharged him as cured, though he had a small bubo remaining. A few months later he was attacked by sore throat and by the eruption described. He returned to the same doctor, who gave it as his opinion that the symptoms had nothing to do with the chancre, but were caused simply by impurity of the blood. The sore throat soon disappeared, but the eruption lingered and evinced no sign of improvement, being still present when I saw him. About three weeks before the epileptiform attack he began to suffer from headache, which usually made its appearance soon after the noon-day meal and increased in severity towards night. A day or two before the seizure he felt giddy; about an hour before the attack he was seized with giddiness, which was so severe that he thought he would faint.

I at once put the patient on the treatment later to be described. For about two years he was almost continually taking medicine, and then I advised him every spring and autumn to adopt certain precautionary measures, of which, also, I shall later speak. Only about three months after the beginning of my treatment did he again suffer from any secondary symptoms, the headache and vertigo returning for about two weeks, and then disappearing, without a renewal of the epileptiform seizure.

For five years he resumed twice a year this after-treatment. He then seemed to have totally recovered. During all those years he was perfectly free from all symptoms of the disease. It is usually observed in patients who have suffered from luetic epileptiform seizures, that local paralyses ensue: especially one optic nerve is apt to atrophy. Nothing of the kind took place in J. F. C. A careful ophthalmoscopic examination failed to reveal the least sign of a morbid lesion. The patient altogether gained over twenty pounds. His com-

plexion was unusually clear. There was not a spot on his skin, not an ache in his body.

This undisturbed health was enjoyed by him until last year. Returning from a trip out West in the spring of 1883, he had sexual intercourse with a woman in New York, and one week later he came to me with a Hunterian chancre. It took about three weeks to heal. Nothing further appeared until three months later, when he was seized by the same eczematous eruption on the anterior side of his trunk that he had suffered from the first time seven years before. At the same time graver symptoms began to show themselves. He suffered from intense pain near the junction of the third rib with the sternum on the right side; complained of violent palpitation of the heart, of difficulty of breathing, and of a feeling of great anxiety and restlessness, and rapidly lost flesh. In this condition he sent for me. I was astonished when I saw him. He had had several rigors; his temperature was  $105\frac{1}{2}^{\circ}$  F., and his face had a cadaverous look, and wore that anxious expression which we at times notice in endocarditis. He suffered from excruciating pains, beginning at the place mentioned near the sternum, and extending in nearly a straight line all the way down to below the umbilicus; and along the whole course of the pain violent palpitation could be felt and at some places seen. The heart itself was greatly agitated, and over the seat of the aortic semilunar valve a harsh blowing murmur was heard, which could also be perceived at the back, and anteriorly between the ensiform cartilage and the umbilicus. The heart-sounds over the mitral and tricuspid valves were normal; the pulmonary could not be clearly discerned, on account of the loudness of the murmur in its neighborhood. The pulse was rapid and slightly irregular. The patient could scarcely breathe for pain, and seemed in a moribund condition. Immediately over the arch the area of dulness was decidedly increased.

I had first taken the case for one of syphilitic periostitis attacking the ribs and the sternum; but the characteristic symptoms—the disturbance of circulation, the murmur, the feeling of great anxiety—left no doubt of its being an endothelial inflammation; and the seat of the murmur, the increased dulness, indicated its being an end-aortitis, especially severe at the



arch, but, to judge from the extension of the pain, of the murmur, and of the palpitation to the abdominal region, attacking nearly the whole aorta.

It was the first time that I had seen a case of this nature. The symptoms were urgent; life seemed to be threatened. I at once put the patient on the inunction treatment, advising him to rub into his skin, always at different parts of the body, a drachm and a half of mercurial ointment twice daily. When I first saw him he had been suffering from the symptoms mentioned for eleven days, and his condition had daily become worse. He assured me that during the last five days he had noticed every hour an aggravation of the symptoms, and that he had not been able to close his eyes for five minutes during the same period. Within four hours after the first inunction a decided improvement set in, and on the third day his symptoms had so decidedly ameliorated that I advised the patient to use daily but one inunction of a drachm each. Though the pain had almost totally stopped by the sixth day, the fever disappeared, the palpitation nearly all ceased, and the murmur almost vanished, I applied a large fly-blister over the chest, still more to stimulate absorption. By the tenth day the patient had to all appearances recovered. A slight pain under the upper third of the sternum and a somewhat overacting heart were the only symptoms left, and even these disappeared during the following three weeks.

More stubborn has been the eczematous eruption, which has to-day not yet totally disappeared, though a slow improvement may be noticed every few days.

This is the history of the case. Most physicians adhere to the dogma that a syphilitic person cannot contract syphilis, just as a scrofulous individual cannot be again attacked by scrofula, and a patient suffering from smallpox cannot be again infected with variola while sick with it. If such is the law,—and the rule seems to find universal application,—we must consider J. F. C. to have been perfectly free from the luetic taint when he became infected the second time. Cases where a person had been totally cured from syphilis are by no means rare; but such, where a person had become affected the second time, are very rare; and still rarer those where the patient, so thoroughly infected

as to suffer from brain-syphilis, had been so completely cured as to become the second time infected, and not only with the primary sore, but also with secondary symptoms. I have not been able to discover in literature any case of the kind.

Some may say that the syphilis in this case was from the beginning not cured, and that the second eruption simply was a continuation, as it were, of the first. That could not have been. When C. became infected the second time, he doubtless had a typical hard chancre. Its edges were thrown up, and a round induration formed its base, and continued like a tubercle of the skin after the healing of the sore. Such a condition is never observed in those herpetic eruptions from which so many luetic persons suffer. The second infection, therefore, cannot be denied. Then the time which intervened between the cessation of the first series of secondary symptoms and the appearance of the second series, and during which the patient was absolutely free from any eruption or symptom whatever, was too long—five years—to permit the supposition that the second eczematous eruption was a continuation of the first. Syphilitic patients almost never get the same skin disease twice: one form is usually followed by another; and when once lues has attacked the internal organs, the period for skin affections is over, and, with the exception of the graver forms, as rupial ulcers, breaking down gummata, etc., the skin is primarily no longer the seat of the lesion. When a patient has once reached the third period, tertiary syphilis, or that part of the second period which may still be considered as secondary lues on account of its early manifestations, as syphilis of the brain or spinal cord, there is never observed a going-back, a return to the period of milder skin affections: they have ceased forever. This well-established fact also proves, therefore, that the second eczema in C.'s case was a symptom of the second constitutional affection.

A chancre frequently heals of its own account, and no general affection ensues. But even cases of constitutional syphilis cease by themselves, and the affected individual never sees a symptom of it. I contend, however, that there has never yet been an authenticated case on record where a person that had been once attacked by a syphilitic epileptiform seizure



has *not* died of the disease, except in those where medical interference cured the lues and saved his life. I go even further, and say that an individual that has once suffered from a syphilitic epileptoid attack will soon experience others; that the attacks become more and more frequent, until the patient in one of them breathes his last, unless the further progress of the disease is stayed by medical skill.

J. F. C. had one attack, after which he was immediately placed under treatment, and with so good a result as not only to prevent the seizures from reappearing, but also to eradicate the disease so thoroughly that after an interval of five years, during which period the patient was absolutely free from any disturbance of his health, he again contracted syphilis, as if he had never before suffered from it. The condition of his blood had become so normal that the first attack did not exert even the influence of making the second milder, a fact usually observed in all zymotic diseases.

It was my intention not only to prove the perfect curability of secondary syphilis, even in its graver forms, but also to show that we have it in our power to cure almost every case of constitutional lues, if no organic lesion has produced a destruction of tissue. But before I speak of the treatment I will mention in a few words the main facts of another case.

R. S. was cured of grave constitutional syphilis, 1861, in the Charité Hospital at Berlin. A few years later I met him in Philadelphia, where he asked me if he could marry with safety. He had been subjected to the same treatment that I have adopted with all my luetic patients, and had been free from all symptoms for four years. I advised him to marry, and he did so. A year later a healthy daughter was born to him. I attended her later for the diseases of childhood. She grew up a blooming girl, and married two years ago. In May of this year I delivered her of a son, a healthy child. Though the father had suffered from a severe form of secondary syphilis, he was so cured of it that in the third generation no sign evinced an hereditary taint.

Most physicians admit that mercurial preparations are the main remedy in primary (indurated sore) and secondary lues, iodide of potash in tertiary. But the profession is divided into two classes, one treating a syphilitic patient only while he

is suffering from syphilitic symptoms, and administering the drug only until such symptoms have disappeared; and the other class putting the patient on gradually-increasing doses of mercury, and continuing the treatment even after the disappearance of the specific symptoms, until the signs of mercurial poisoning have fully developed themselves, when the mercury is followed by a course of iodide of potash.

I contend that the latter treatment is not only the best and most reliable, but also that it alone gives us a guarantee of a perfect cure. Under it, it is rare to see a patient frequently suffer from luetic symptoms; once passed through the course, he will be very, very seldom observed ever again to suffer from syphilis.

If an individual has become infected with the poison of typhoid fever, smallpox, or any other zymotic disease, nature makes a violent effort to get the poison out of the system again. It is my opinion that we will never be able to cure a patient of syphilis until he passes through a crisis. Such has been my experience, such is my conviction. I honestly speak the truth when I say that I have attended a considerable number of persons suffering from lues, but of those patients who minutely followed my directions I have never known one to return to me still suffering from syphilitic symptoms; every one of them has, to all appearances, been radically cured of the malady. To my regret, I can cite but the two cases reported in this paper as definite proofs; all the others simply never again had any manifestations of the disease. A number of them married, three of them have healthy children, but I am not yet old enough to follow up their cases to the third generation. That but one of them again contracted a primary sore is probably due to the fact that "a burned child dreads the fire." But, I repeat, it is the honest truth that I have seen in none of the cases, discharged by me as cured, the return of a single luetic symptom.

I shall now describe, in as few words as possible, my treatment, which, with the exception of a few minor alterations, is the one adopted by the best-known physicians in Germany. It is not as easy and comfortable for the patient as the other, but it gives a better result.

When a patient comes to me suffering from syphilis, I explain to him the necessity of being under continuous medical treat-



ment for the period of eighteen months, and of being under medical observation for the same length of time. I then either prescribe calomel or a still milder preparation of mercury, or—during the warm season of the year, or if I can keep the patient confined to his room—put him on the inunction-treatment. But when mercury is administered internally the dose has to be slowly increased, and to be guarded by a small quantity of opium to prevent its action on the bowels. I usually prescribe three grains of calomel with two grains of the extract of opium, and have nine pills made of the whole, the patient taking one pill three times daily. Every third day one grain of calomel is added to the prescription; or I prescribe one hundred pills, each containing one-third of a grain of calomel and the twenty-fourth of a grain of the extract of opium. In this case the patient begins with one pill a day, and increases the daily dose by half a pill. When he has reached ten pills as the daily dose, he takes half the number in the forenoon, the other half in the afternoon. In the inunction-treatment one drachm of mercurial ointment is daily rubbed into the skin, first of the right, then of the left calf; then of the right, then the left thigh; afterwards of the right, then the left arm. The underclothing is not changed. On every seventh day the patient takes a warm bath and uses plenty of soap. He also then changes his underclothing, and begins the same course over again.

The main point is to continue either treatment until salivation sets in. Even then it must not be stopped, but persevered in until decided ulceration indicates the physiological limit. A gargle of chloride of potassium, and lightly brushing the ulcerated parts and the gums with pure nitric acid every third day, and, for a few days, every day a moderate dose of Glauber's salt, will soon remove every trace of stomatitis. The patient during this period usually loses in weight: according to the amount of adipose tissue present, this loss varies from eight to twenty-two pounds. As soon as the salivation has been totally cured, two fluidrachms of ferrated elixir of cinchona are administered three times daily for one week. The patient—no matter what his symptoms previously were—by this time is totally free from any luetic manifestation; his appetite rapidly returns, he quickly increases in weight,

and commences to feel better than he did at any time since suffering from syphilis.

After the elixir has been taken a week, iodide of potassium is administered in increasing doses. Usually beginning with five grains, I slowly augment the quantity until the patient is taking twenty grains three times daily. Only, when some syphilitic symptom returns, this dose is still more increased, until the symptom ceases. Whatever dose is necessary (or the twenty-grain dose) is continued for one week, when the quantity is slowly diminished in the same way as it was increased.

The patient is then advised to go for a week or two to the sea-shore or to the country. If he cannot afford such a luxury, out-door exercise in the Park is recommended. On his return, he takes for a period of four weeks, every second day, a hot bath, and internally a decoction somewhat similar to decoctum Zittmannii. It is remarkable that, if there still be any syphilis in the system, it now is apt to show itself. If such is the case, the whole course of treatment is repeated, and again continued so long. Should no syphilis manifest itself, the patient is put for the remainder of the eighteen months on the following treatment: for four weeks he takes one-fourth of a grain of yellow iodide of mercury; then for four weeks one-sixteenth of a grain of corrosive sublimate; then for four weeks the same dose of binocide of mercury; then for four weeks iodide of potash, as before; then the same course repeated, until seventeen months are passed, when during the last month two fluidrachms of ferrated elixir of cinchona are ordered.

During all this time the utmost attention is paid to the patient's diet and hygienic surroundings. He has to lead a perfectly regular life, and, while everything injurious is interdicted, all that may improve the general health is recommended. Certainly, in each individual special conditions arise, which are treated on general principles. During the second period of eighteen months, the patient passes every three months through a three weeks' course of iodide of potassium. Every four days during such a course the dose is altered, beginning with five, increasing to ten, then to twenty grains three times daily, and then diminishing to ten, and lastly to five grains. When the patient is finally discharged, he is recommended, during the



remainder of his life, every April and October, beginning on the first of the month, to take that same short course of iodide of potassium that he passed through six times during the year and a half he was under medical observation. For this purpose he is advised to buy one ounce and two drachms of iodide of potash and fifteen ounces of syrup of orange-peel, one teaspoonful of this mixture representing five grains of the drug; so that he takes the first four days one teaspoonful, then two, then four, then two, and then again one, three times daily, in plenty of water, two hours after meals.

No matter what the explanation, the results are such as to increase my confidence in the treatment. Other procedures will remove syphilitic symptoms; but the patient will return every three, six, or nine months with some new complaint, or, when older, he will suffer from tertiary symptoms. Under the treatment proposed, he is forever relieved from all symptoms,—with the chance of once more contracting the disease, it is true; but that is his own lookout.

507 FRANKLIN STREET, PHILADELPHIA.

#### EVIDENCES THAT CERTAIN HISTOLOGICAL ELEMENTS ACT AS PROPHYLACTIC AGENTS.

Read before the Medical Association of Central New York,  
May 20, 1884, at Rochester.

BY C. S. DOLLEY, M.D.

THE analogy between certain tissue-elements of higher animals and independent unicellular organisms has come to be universally recognized, the amœboid cells of the more complex animal body being known to carry on the same series of phenomena, as regards movement, growth, and reproduction, as the simple rhizopod.

The exact significance of amœboid cells is, however, still a matter of discussion, and yet it cannot be doubted that they possess some specific function. The examination of living cells from various tissues usually demonstrates the presence of small particles embedded in their substance, all of which—pigment, fat-molecules, granules, etc.—cannot be considered as physiological products of the cells themselves.

Haeckel\* found, whilst injecting *Tethys fimbriata* with indigo, that fine particles of coloring-matter could penetrate into the interior of the blood-corpuscles. Engelmann† pointed out the movement of the corneal corpuscles; Von Recklinghausen‡ was the first to furnish proof that pus-corpuscles or other cells in complex animal bodies can migrate in the tissues even of a dead cornea; while Cohnheim§ demonstrated the power of certain living cells to transplant themselves from one organ to another and from one tissue to another.

Joung,|| Pagenstecher,¶ Biesiadecki,\*\* and others favor the idea that colorless blood-corpuscles are destined for the regeneration of the various tissues of the body. While this may be true to some extent, many observed facts point rather to the conclusion that they exercise during their free stage the very important office of depuratory or prophylactic agents, removing from the blood and tissues materials for which there is no further use or which are foreign or injurious to the organism.

It was long held that the red corpuscles of the blood resulted directly from a metamorphosis of the leucocytes; but, since the demonstration by Norris and others of a third corpuscle,†† the leucocytes have been left comparatively functionless.

It is considered that the cellular elements of the different tissues of the animal body are nourished by a pabulum brought to them in a state of solution,—a serous or tissue fluid. That this is the case is unquestionable; but that certain cells which have not secreted a firm cell-wall nor become fixed, retain the power of taking up and digesting particles not in solution, is nearly as well established.

In studying those forms which occupy an intermediate position between the protozoans, or single-celled, and the metazoans, or many-celled, animals (*i.e.*, the colonial monads), we find that, while the colony exercises some powers as a whole, the various members composing it retain

\* Stricker's Manual of Histology, p. 34.

† Ueber die Hornhaut, Leipzig, 1867.

‡ Virchow's Archiv, Bd. xxviii.

§ Ibid., Bd. xi.

|| Stricker's Manual of Histology, p. 47.

¶ Wiener Sitzungsberichte, 1868.

\*\* Stricker's Manual, p. 47.

†† R. Norris, M.D., Physiology and Pathology of the Blood, London, 1882.

Bizzozzo, On a New Element of Mammalian Blood, and the Part it plays in Thrombi and Coagulation generally. Centralblatt, January, 1882.



all their functions as individuals: there is no division of labor; each cell carries on a life of its own. This has led to the question whether the cells of metazoans proper may not retain this power to a degree. Thus, the ectoderm cells of certain hydroid polyps protrude pseudopodia which anastomose to form a sort of plasmodium, and have been seen in *Plumularia* to take up foreign particles. Young sea-anemones are often found distorted and looking very dirty from the excess of foreign matter which they have taken into the ectoderm. The particles are usually embedded in the protoplasm, but sometimes they are surrounded by a vacuole, showing that digestion is in progress. The identity of the particles with those in the stomach of the parent would indicate that they are not products of the metabolism of the animal itself.

Throughout the various groups of the animal kingdom mesodermic cells have been shown to possess the power of ingestion, both of useful and of useless things, and of matter furnished by the animal itself or foreign to it.

In the jelly-fish (*Aurelia aurita*) many ovarian ova are surrounded by wandering cells and devoured. During the metamorphosis accomplished by the larvæ of many star-fishes and sea-cucumbers (*Auricularia* and *Bipinnaria*), the mesodermic cells swallow bodily the debris of the disappearing organs. This is not confined to echinoderms, but may be observed in ascidians, while Schneider showed that resorption of the generative products by amœboid cells occurs in leeches, and Preyer\* that portions of red corpuscles of extravasated blood are eaten by the white blood-corpuscles of amphibia. So far the ingested material has been furnished by the organism itself; but materials foreign to the body have been shown to be taken up by these digestive cells. Among others, Schultze demonstrated it among sponges, Hæckel in sea-slugs (*Tethys*), and Metschnikoff† in echinoderm larvæ, sea-anemones, and nemertian larvæ (*Pilidium*), and I have myself fed the motile blood-cells of Anodonta with human blood by injecting this substance into the pericardium, and after a time examining the blood of the

animal, when I found many of the large amœboid cells of the mollusk enclosing one and sometimes two human red blood-corpuscles. Besides indigo and carmine, aniline blue, blood, milk, starch, cinnabar, particles of glass and charcoal, minute egg-cells, and solutions containing bacteria have all been successfully experimented with by different investigators.

The blood and milk were in several cases not only ingested, but digested and absorbed, as were also the bacteria, whether introduced artificially or when watched in animals suffering from diseases in which bacteria were found already in the blood. There seems to be some power of selection among these amœboid cells of complex bodies, just as there is among rhizopods, for, while they will seize upon and devour the various substances mentioned, living eggs have been introduced, fertilized, and developed among amœboid cells without harm, but it was found that they were at once ingested when dead. At times no attempt seems to be made at ingestion by the amœboid cells, and they act as prophylactic agents simply by grouping themselves about the harmful body to form an encysting plasmodium. This process is common in all classes of animals. The power of cells to ingest foreign or harmful materials has been less frequently described among higher animals, on account of the greater difficulty attending observations, and because the more highly developed the animal the more marked the division of labor among its component cells. Whilst in the colonial monads and lowest metazoans each morphological unit retains an individuality as to the prehension of food, nutrition, sensation, and reproduction, in higher forms certain cells become largely protective in their character.

This is true of the cells derived from the epiblast, which make up the stratified pavement and squamous epithelium, and the protective ciliated cells. It is, however, in the tissues of mesoblastic origin that we must look for the most numerous examples of cells which have retained their mobile and ingestive powers. The blood, lymph, connective tissue, and dermal cells will include most of those which have been found to exhibit this power. They have, from being so placed in the body as to be protected from external insults, retained their amœboid characteristic,—mutability of shape. This is essential; for a cell which

\* Virchow's Archiv, Bd. xxx. p. 423 (On Amœboid Blood-Corpuscles).

† Researches on Intracellular Digestion of Invertebrates, Arbeiten Zool. Inst. Wien, 1883. Quart. Jour. Micros. Sci., January, 1884.



has become fixed by the differentiation of a firm membrane from the enclosed protoplasm is like an encysted rhizopod, and no longer capable of ingesting foreign particles of any kind; but the cells possessing this power, as we have seen in the numerous instances cited, act constantly as prophylactic organs or agents. In the processes of resorption they evidently take a leading part, devouring those tissue-elements which have fulfilled their part in the bodily metamorphosis. That they assist materially in the introduction of food-particles into the chyle seems very probable. The chyle-vessels, or lymphatics, of the villi lie in the centre of those organs and act as drainage-pipes. Analogy would indicate that the undissolved nutritive particles, being incapable of reaching them by osmosis, are taken up and passed into them by the epithelial and parenchymatous cells of the villi. That there is an active part of this kind taken by these cells is probable, for in injections of the chyle and lymphatic vessels none of the injected matter escapes into the surrounding tissues. Von Recklinghausen says, "It is reasonable on *a priori* grounds to consider that the epithelial coating of the chyle and lymphatic capillaries present special peculiarities, which stand in relation to the absorption of materials from the surrounding tissues, and which may, at any rate, at certain times facilitate their passage . . . If we consider the phenomena of the absorption of fat, it appears absolutely requisite to assume not only that there are foramina in the walls of the capillary lymphatics, but that there are channels in the surrounding substance of the parenchyma in the case of the villi, though in regard to other rootlets of the lymphatic vessels their existence appears less requisite, since their contents, apart from the lymph-corpuscles which are probably formed in their interior, ordinarily consist of a fluid destitute of any undissolved particles, or oil-drops."\*

This seems to me an unnecessary assumption, even granting that such small openings are known to occur in some lymphatics, for the villi would then simply act as strainers, and the only requirement for the entrance of food-particles into the lumen of the chyle-vessels would be that they be of a size capable of passing through

these foramina; the cells of the villus would be passive. Trophic phenomena, however, seem to indicate that these cells have some active function, and, no matter how much pabulum the intestines may contain, at times it will not be passed on into the chyle to any great extent. The resorption of serous fluids through stomata as described by Von Recklinghausen (in the central tendon of the diaphragm of mammals), by Schweiggerseidel and Doziel (in the wall of the *cisterna lymphatica magna* of frogs), and by Dybskowski (in the pleura of the dog), is a different matter from the absorption of material foreign to the body and containing numerous undissolved particles.

Why may the epithelium of the villi not act as do the ectoderm cells of sponges, which, according to Lindensfeld, take up foreign particles and pass them on to the wandering mesodermic cells below? Living mobile cells in other parts of complex bodies have been found analogous in their functions to such cells in lower forms: why not here?

In positions where foreign particles of a harmful nature are brought in contact with vital parts, they are rapidly seized upon, and either digested or rendered comparatively harmless by amoeboid cells. This is well illustrated in the gasteropod *Carinaria*, sometimes called "Venus' slipper," or the "glass nautilus." On the inner surface of the contractile walls of the excretory organ of this animal there is a distinct investment of granular cells which are supposed to produce the renal concretions. These concretions are, however, not formed by the animal, but are foreign bodies. Since this organ connects the pericardium with the exterior and is constantly driving water inwards and mixing it with the blood which is returning to the respiratory organs from the general circulation, these cells are posted here to pick out any foreign impurities harmful to the organism which may be swept in with the water.

That proper search will bring to light many other prophylactic organs there is little doubt; but, from what we have already seen, it is evident that the amoeboid or motile cells of the body function as aids to tissue-metamorphosis by seizing upon the decomposing cells. Dr. Chambers, in his "Renewal of Life," says, "The most active metamorphosis of the

\* "The Lymphatic System." Stricker's Manual of Histology, pp. 221, 223.



body possible, the highest development of life in every part, is health; the complete cessation of metamorphosis is death; partial cessation or arrest is disease." He points out morbid phenomena as dependent upon either "deficiencies of nutrition, or form-building," or upon "deficiencies of moulting, or form-destruction." It is with this latter cause of disease that the prophylactic cells of the body are constantly combating. "Disease of destruction or of deficient moulting arises when the functions whose business it is to remove effete products from the tissues are inefficient; restoration to health we often see come to pass independent of any interference from without by what is allegorically called 'an effort of nature;' wounds heal, diseases cease, in men and animals who have none to help them; the event comes about not in consequence of the driving out of any *materies morbi*, but on the resumption of their normal functions by the diseased organs the full vital force regains its influence in them, and they recover. The social disease of the 'strike' is cured by the hands going back to work again."

Now, it has been seen, in a rat suffering from septicæmia, that the white blood-corpuscles take up the bacilli which are regarded as the cause of the disease, and these amoeboid cells have been watched until the ingested bacillus has grown gradually more and more indistinct and at last faded away: in fact, it has been digested. Other cells do not seem capable of digesting or destroying the bacillus, and it remains like a filament sticking from the apparently dead cell. It is under such conditions of lowered vitality that the hundred and one so-called "specific germs" do their mischievous work, not when they find the prophylactic agents of the body in a vigorous condition. This is evident when we look on the list of bacteria constantly to be found in the healthy body: almost every form which at times is said to be the specific cause of some disease is to be found. In the writer's opinion, the sooner practitioners leave off fighting bacteria with germicides the better, for it has repeatedly been shown that it is next to impossible to destroy these germs, some of which will ferment carbohic acid as readily as others ferment milk. Treatment calculated to stimulate the lowered vital functions is what is called for in diseases due

to a failure in nature's means of destroying and carrying off effete and harmful particles. Bacteria may be, as Dr. Formad has pointed out, the *causa mortis*, without being the *causa morbis*. The system of lowered vitality cannot so readily withstand the deoxygenation of blood and tissue attendant upon the presence of innumerable bacteria (which increase in direct proportion as the tonicity and vital resistance decrease) nearly so well as the system in full vigor; and, being once down, it succumbs to a foe not new, but with which it has previously been able to cope by means of the never-failing activity of its tissues.

I am, after consideration of this subject in as many lights as possible, disposed to regard the function of the amoeboid cells of the body as prophylactic in character, tending to convert harmful particles, whether foreign or the result of tissue-metamorphosis, into harmless ones; and that they are not especially destined for the regeneration of tissues, since these are well known to renew themselves through fission, gemmation, and endogenous cell-formation.

#### REPORT ON THE PROGRESS OF DERMATOLOGY.

BY ARTHUR VAN HARLINGEN, M.D.,

Professor of Skin Diseases in the Philadelphia Polyclinic, etc.

##### DERMATITIS MEDICAMENTOSA.

**IODIDE of Potassium Eruption.**—Dr. James A. Lindsay (*British Medical Journal*, March 29, 1884) reports a case of eruption from iodide of potassium. A patient suffering with paralysis of the arm was ordered the iodide in doses of three and three-quarter grains. Of these she had taken two when she began to feel sick and went to bed. A severe headache set in, accompanied by an intense sensation of itching in the skin, which began between the shoulders and spread rapidly thence over the trunk, upper extremities, and face. When she scratched the parts affected, she experienced a feeling like the stinging of nettles. Following the itching there came an eruption of blisters, each lesion surrounded by a pair of bright-red concentric rings, the larger half-dollar size. The body was quite covered with the eruption, and there were two spots on the thigh. There were patches on the face even running up into the nostrils, and severe sore



throat, supposed to be due to lesions on the pharyngeal and buccal mucous membranes. There was little, if any, nasal or conjunctival catarrh. The headache, heat of the body, and prostration were extreme. Notwithstanding these symptoms, the patient continued to take the medicine for a week, but in diminished doses. At the end of a week the blisters had dried up, and when seen by Dr. Lindsay, ten days from the beginning of treatment, the only eruption left was made up of reddish-purple rings, somewhat larger than half a dollar, situated chiefly about the arms and shoulders. In the centre of each ring the cuticle was broken and shrivelled as from the drying of a blister. There were other symptoms of iodism. The paralysis was cured.

*Morphine Eruption.*—Kern (*Wien. Med. Presse*, No. 18, 1883) gives the case of a patient, 35 years of age, to whom a suppository containing one and six-tenths grains of muriate of morphine was administered at noon. The next morning he sought his physician complaining of intense pruritus extending over the entire surface. Erythema supervened almost simultaneously, beginning about the perineum and scrotum. At various points scratching had given rise to the appearance of small bullæ. There was considerable fever. Next day the fever had diminished, but the erythema had spread over the entire surface, sparing only the lower extremities. The penis and scrotum were much swollen. Desquamation took place by the end of a week.

#### ABSORPTION THROUGH THE SKIN.

Günther (abstract in *Monatsh. f. Prakt. Derm.*, 1883, No. 9) has made experiments with positive results on the absorption of aqueous, ethereal, and alcoholic solutions through the human skin, skillfully contrived to guard against fallacies. The leg and foot were enclosed in a box and completely isolated by closely-fitting caoutchouc. When a one-per cent. ethereal solution of pilocarpin was applied in the form of spray, the characteristic effect of the drug was obtained. Applied in the same way, apomorphia produced nausea and feeling of indisposition, although not positive retching.

#### DISEASES OF THE SKIN DUE TO DIABETES.

Kaposi (*Wien. Med. Presse, Annales de Derm. et de Syph.*, January 24, 1884), in

a paper on the subject, calls attention to a peculiar bullo-serpiginous form of gangrene occurring in diabetes. One case, a woman, 51 years of age, showed an elongated triangular patch of gangrene on the internal middle third of the leg, a second half-dollar-sized patch below the crest of the tibia, and a third small patch on the outer side of the calf. On the anterior surface of the leg, enclosed as it were by these three patches of gangrene, fifteen or twenty pea- to bean-sized bullæ could be seen, of round or oval contour, tense, and filled with a turbid fluid. Where a bulla had been ruptured here and there the raw surface underneath could be seen, covered with a yellowish eschar. Each of the gangrenous patches was surrounded by a ring of bullæ, the process being evidently the formation of bullæ in the first place, these being followed by gangrene, the whole taking a serpiginous course. Kaposi, after having excluded all the various causes which might cause gangrene, concludes that the presence of sugar in the tissues was the cause in this case. As the patient improved on the use of Karlsbad water, the sugar diminished in the urine, and the gangrenous patches healed over. Later, however, a relapse took place, new gangrenous patches supervened, and the patient died.

In order to explain this peculiar process, Kaposi passes in review all the various diseases of the skin which can be caused by diabetes, as these have been reported by various observers. These are as follows: 1, anidrosis or asteatosis of the derma (xerosis); 2, pruritus cutaneus; 3, chronic papular urticaria; 4, acne cachecticorum; 5, roseola and erythema; 6, eczema, especially of the genitalia, balanitis, mycosis, furunculosis, and gangrenous vulvitis; 7, diabetic paronychia; 8, furunculosis and anthrax; 9, gangrene.

Examining more closely the characteristic features of these dermatoses in relation to diabetes, Kaposi points out that, so far as gangrene is concerned, the first symptom in a number of recorded cases has been the formation of bullæ. The characteristic points in this form of gangrene are its appearance in disseminated points and in certain regions in the form of cutaneous lesions, making a serpiginous progress, with consecutive reparation and elimination of the derma.

Kaposi also lays stress upon the commu-



nity of origin in each of these dermatoses relative to diabetes,—the common cause in each case being the presence of sugar in the tissues. Sugar has, indeed, been found in all the tissues, the secretions, sweat, pus, etc. The excitation produced by sugar, or by one of its products of decomposition, sometimes causes alteration in the sensory nerves, with pruritus, sometimes alterations in the secretory and vasomotor nerves, with consequent anidrosis, asteatosis, or urticaria, or sometimes, finally, inflammation by direct irritation of the walls of the vessels and other tissues or elements of tissues. These last do not, however, show a strong tendency to inflammatory proliferation, but, on the contrary, are greatly disposed to necrobiosis. It may happen that a feeble intermittent excretion of sugar, or a diabetes of long duration, may induce a gradual toleration of the tissues, a preponderant proliferation with a feeble destruction of tissue. If this is admitted, it will account for a case of papillomatous eruption coming under Kaposi's care in an elderly physician with diabetes. Here a sudden circumscribed inflammation of the back of the hand was followed by ulceration, and later by warts and excrescences, the disease finally involving the fingers, forearm, and elbow, and resembling lupus verrucosus or syphilis. Scraping, with lotions of corrosive sublimate and the application of mercurial plaster, effected an almost complete cure of the skin-disease. The patient died later of diabetic coma.

#### THE THERAPEUTICS OF SKIN-DISEASES.

LUPUS.—Unna scrapes the lupus nodules with the sharp spoon, and applies the following as a plaster:

R Pulv. amyli, ʒss;  
Glycerinæ,  
Mucilaginis acaciæ, āā gr. cl;  
Acid. pyrogallici, ʒi.—M.

Another preparation which Unna employs with great satisfaction is corrosive sublimate. He uses the following plaster:

R Hydrarg. bichlor. corros., gr. v;  
Acidi carbolici, ʒv;  
Zinci oxidi, ʒiii.—M.

A third is the following:

R Hydrarg. bichlor. corros., gr. xv  
ad ʒj;  
Sodii sulpho-ichthyolati, gr. lxxv  
ad cl;  
Aquæ destillat., fʒiii ʒi.—M.

The sulpho-ichthyolic acid neutralizes the keratolytic properties of the corrosive sublimate, so that the mixture acts only on the diseased tissues, while leaving the healthy epidermis untouched: it also, if we understand Unna, aids in healing over the wound when the lupus tissue has been destroyed. Sulpho-ichthyolate of sodium has not yet reached the American drug-market.

Dr. Collier (*Med. Times and Gazette*, April 26, 1884) uses in lupus vulgaris the officinal solution of sulphurous acid, either pure or diluted with one to four parts of water. He also employs an oil made by dissolving the anhydrous acid (a concentrated alcoholic solution of the gas) in castor or olive oil. Occasionally he dilutes the acid with glycerin. The cases treated were all ulcerated conditions of the disease, and the ulcers were in each of five cases healed over very satisfactorily.

RINGWORM ("ECZEMA MARGINATUM").—In the intractable form of ringworm occurring about the genitalia and thighs, and sometimes (wrongly) called eczema marginatum, R. W. Taylor (*Jour. Cut. and Venereal Dis.*, February, 1884) uses a solution of four grains of corrosive sublimate to the ounce of tincture of myrrh, painted upon the part twice daily. The simple and compound tinctures of benzoin may also be used as vehicles for the parasiticide.

(Further experience, reported in a more recent number of the journal, leads Dr. Taylor to prefer a two-grain solution of the sublimate to begin with, the strength to be increased later to four grains. He also now gives the preference to compound tincture of benzoin as a vehicle.)

SCROFULODERMA.—Mr. Milton (*Jour. Cut. and Venereal Dis.*, April, 1884) has recently been giving the results of his extensive experience in the treatment of "strumo-derma," and his practice differs so entirely from that almost universally in vogue as to make it worthy of remark. His system consists in the unsparing use of purgatives and the enforcement of a light diet. The purgatives employed are calomel and salines. A dose of the former, alone or with a little gray powder, is given two or three times a week at bedtime for a fortnight, after which it is withheld for two, three, or four weeks, the longer intervals being observed in cold weather; the saline is taken every morning, both being



prescribed in such doses as will insure conjointly daily free action of the bowels. Beyond this nothing is done as regards the strumo-derma. If the appetite fall off, nitro-hydrochloric acid can be given with some bitter infusion, and occasionally towards the close the patient derives benefit from an acid solution of iron. As an outward application, Milton uses simple water-dressing and zinc ointment. So soon as the surface is healed, blistering fluid may be applied to hasten the filling up of the depressions left behind. A light unstimulating diet is ordered, and beer, spirits, and over-free use of butcher's meat are forbidden. The result of this treatment in eighty-two cases was, in all those remaining under observation, highly successful.

**PITYRIASIS CAPITIS.**—Unna considers this affection as requiring the employment of parasitocides, although he is not at all sure whether it is in any case of parasitic origin. He orders nightly applications of oil, or, if there is much inflammation, oil and lime-water, to the scalp, which is then covered with an impermeable cap. In the morning a gentle shampooing with soap and water is practised, and the hair is brushed, but not combed. The scales once thoroughly removed, the nightly applications of oil are discontinued, and each daily washing is followed by the application of the following ointment:

R Pulv. zinci oxidi,  
Sulphuris præcip., aa 3ss;  
Axungiae, 3v.—M.

Or, instead of this, an ointment made up of fifty grains of sulphur to the ounce of benzoated oxide-of-zinc ointment. Three to six weeks suffice, according to Unna, for a cure. He occasionally gives iron and arsenic. Unna considers sulphur the most valuable of all remedies in pityriasis capitis, and next to this he places the mercurial preparations, particularly red precipitate. He gives only an inferior position to tar and its derivatives.

Besnier and Doyon usually order the hair cut close (except in women), then cleansed with decoction of quillaya or soap, and, after all scales and grease are removed, inunctions with a five-per-cent. naphthol ointment every evening, or with a five-per-cent. solution of naphthol in oil of benne. In women with long hair, twice a week will suffice, and the scalp is

to be cleansed next morning with hot decoction of quillaya, and afterwards rinsed out with pure water and dried.

**THE INTERNAL ADMINISTRATION OF CHRYSAROBIN (CHRYSOPHANIC ACID) IN SKIN-DISEASES.**—Dr. Stocquart (*Annales de Derm. et de Syph.*, January 25, 1884) has used chrysarobin in 61 cases of skin-disease with excellent results: of 32 cases of eczema, 30 were cured; of 5 cases of psoriasis, 3 were cured and 2 improved. Cases of ecthyma, impetigo, and acne also yielded to this treatment. The drug was usually given suspended in water, the average dose being about one-sixth grain per diem for children, and one-half grain for adults. Diarrhoea, nausea, and vomiting were brought on when large doses were used. The drug was also given hypodermically.

#### NOTES OF FOUR CASES OF VARICOSE VEINS TREATED WITH HAMAMELIS.

BY B. F. NICHOLLS, M.D.

IN April, 1883, I read in the *Philadelphia Medical Times*, No. 402, an article by Dr. J. H. Musser on "The Treatment of Varicose Veins with Hamamelis." A few days after I read this article, Mrs. W., a married woman, age 35, called at my office on account of swelling and varicose veins of the left leg. On examination, I found the left leg considerably swollen, with here and there large dark spots, which on pressure were quite soft and somewhat tender. These spots were as large as eggs, and situated on the inner aspect of the calf. The right leg was all right. Mrs. W. was three and a half months pregnant with her fourth child. She had always experienced trouble with the veins of her left leg while pregnant, beginning about the third month of pregnancy and continuing till delivery. In her former pregnancies her leg had been treated by bandaging, which afforded some relief, but her distress was so great that at times she was compelled to seek relief by lying down. I concluded to try the hamamelis, and ordered her to take one teaspoonful ext. hamamelis four times a day in a wineglassful of water. She began to improve at once, and continued to take the drug till delivered. Her leg gave her no trouble, the swelling and vari-



cose veins disappearing altogether. Mrs. W. is again pregnant, and the varicose veins appeared again at the usual time. She is now taking hamamelis with success.

The second case is a young colored man, age 30; has had varicose veins for two years. He got some relief from bandaging, but relief was only temporary. Last November he came to my office with a ruptured vein, considerable oozing of blood. Put on a compress and ordered hamamelis, teaspoonful every three hours. Saw him next day, took off compress, no bleeding. Continued hamamelis. Did not see him again for two months, when he reported at my office well. Have seen him several times since, and he has had no return of his varicose veins.

The third case was a woman, age 50 years; was a washerwoman; had had varicose veins for a long time; did not remember when they first came; was treated by adhesive strips and bandage, but always returned after the bandages were left off for a short time. I gave her hamamelis, two teaspoonfuls three times a day in water. She got entirely well in two months, and has remained so ever since.

The fourth case, a woman, age 47 years, sent for me May 10, 1883. I found her sitting in a chair, bent forward till her face was between her knees, her hands clasped firmly together, her legs stuck out in front, covered with wet cloths. I do not think I ever saw in my life such a picture of utter hopelessness as this patient. When I approached her, she looked up and in the most piteous voice exclaimed, "For God's sake, can you do anything for me?" On examining her legs, I found the cause of all her trouble: both legs were a mass of ulcers from the knees to the ankles. From the ulcers was oozing a clear fluid, which soon turned the cloths black. Situated a little behind the knee were several bunches of varicose veins. I thought I had found the original trouble. On inquiry, she said at first, some five years ago, her leg was full of large veins and considerably swelled, and the ulcers came afterwards. I put her on extract of hamamelis, a teaspoonful every three hours, and told her to keep cloths wet with hamamelis applied to the leg. She recovered in two months, and all she has left to remind her of her former trou-

ble is considerable discoloration on the anterior aspect of her legs. She walks all about the city, experiencing no trouble whatever.

The extract of hamamelis used in all my cases was procured at Bullock & Crenshaw's.

In conclusion, I would say that I consider hamamelis almost a specific in varicose veins from almost any cause. I did not find it disagree in any way with my patients. It is not at all unpleasant to the taste.

719 SPRUCE STREET, PHILADELPHIA.

### AN INTERESTING CASE OF POISONING FROM VERATRUM VIRIDE.

BY LLOYD N. HORWITZ, M.D.,

Late Resident Physician to Philadelphia Hospital.

**W**ILLIAM M., white, æt. 38 years, admitted to the Philadelphia Hospital April 27, 1883. Symptoms of commencing typhoid fever were present, and the patient ran the usual course of the disease, convalescence setting in on the twenty-second day. On the evening of the second day of his convalescence, or twenty-three days after his admission, the poison was administered through a mistake of one of the attendants of the ward.

It was nearly ten minutes after the ingestion of a teaspoonful of the official tincture of veratrum viride that the patient was first seen by the writer, and up to that time the drug had failed to produce any nausea or vomiting, as is usually the case when overdoses of this poison have been taken, this prompt emesis which it usually produces being the probable explanation of its lethal inactivity, for, in the act of vomiting, the medicine is ejected with the first matter from the stomach.

Very great depression of the powers of life was observed, the action of the heart exceedingly weak and feeble, the pulse almost indistinguishable, the surface of the body cold and covered with a clammy sweat, and the temperature reduced below normal about one degree. The globes of the eyes were prominent, lending a peculiar staring appearance to his countenance, and the pupils decidedly contracted. The patient experienced some dyspnoea, and the respirations were shallow and labored.



He was restless, and the countenance bore an anxious expression; the delirium, which had almost subsided before the administration of the drug, returned with renewed vigor. It was of a low, muttering character, and continued so for some twelve hours after the administration of the poison, when it was replaced by a condition of semi-stupor, which abated but little up to the time of his death. No numbness or tingling was complained of, and tactile impressions, though not entirely absent, were very faint.

Measures were immediately taken to remove from the stomach any portion of the poison which it might contain. Mustard-water, followed by a well-diluted solution of about thirty grains of the sulphate of copper, was administered, and in a short time free vomiting was produced. The stomach-pump was then resorted to, and the stomach thoroughly washed.

Under the use of artificial heat, brandy both by the stomach and rectum, and ammonia, in a few hours the respiration became less embarrassed and shallow, the pulse became fuller and stronger, the anxious expression of the countenance lessened, and a condition of general physical quiescence ensued.

The action of the heart, however, never entirely recovered its strength, and the number of pulsations per minute reached fifty-two as the maximum some six hours prior to his death.

On post-mortem examination, the thoracic viscera were found in a normal condition, except a slight increase in the pericardial fluid.

The stomach was almost empty, and its mucous membrane showed unmistakable evidences of acute gastritis, the inflammation, however, not being generally spread over its entire surface, but appearing in spots, the congestion gradually lessening into the surrounding healthy tissue.

The intestines exhibited the usual ulcerations of Peyer's patches, but no point of perforation could be distinguished.

The patient undoubtedly recovered from the poisonous effect of the drug, but the depression of the vital powers which its ingestion caused, when superadded to the already prostrated condition in which the fever had left him, undoubtedly produced the fatal termination.

July 17, 1884.

## TRANSLATIONS.

THE CHOLERA OF 1884.—M. Jules Guérin, at the session of the *Académie de Médecine* of July 22, read a communication upon the present epidemic of cholera in France. Having himself witnessed the six epidemics of cholera which have visited France since 1832, and having taken an active part in the treatment of cases during these epidemics, he speaks with confidence based upon experience and knowledge. Taking the report of the commission recently sent by the government to study the cholera at Marseilles and Toulon as his theme, he insists first that there is no evidence that the disease was imported, but, on the contrary, the local conditions being favorable for its development, there were no grounds for the belief of its spreading by communication, patients being attacked simultaneously in widely different parts of the cities, thus showing the operation of a general, extended, and widely disseminated cause. The disease, however, was genuine cholera. The report of the Commission also bears involuntary testimony to the truth of the statement that "there are not two sorts of cholera: cholera nostras and Asiatic cholera are the same." Finally, he insists upon the value of prophylaxis by removing filth and improving hygiene; and especially upon the importance of taking the premonitory diarrhoea as a warning of the approach of cholera, and treating it promptly. After a lengthy discussion, he submitted the following conclusion:

1. Conforming to the teachings of the greatest masters of medical science from the time of Hippocrates to our own day, he had always considered the evolution of epidemics, and of cholera epidemics in particular, as products of certain medical constitutions resulting from successive modifications of the atmosphere and of the organism.

2. Under the control of these modifications, cholera epidemics are ushered in by derangements of the health, characterized especially by persistent diarrhoea, among infants at first, among adults and the aged later. This he had noticed at the approach of all the epidemics of cholera since the year 1831 (more than a year prior to the epidemic of 1832), and he had also noticed it in the four great epidemics which have occurred in France



since 1832,—in 1849, 1853, 1866, and 1873.

The existence of these diarrhoeas, to which he had given the name of "premonitory diarrhoeas of epidemics," has been confirmed by the best observers of all lands.

3. At the time of the outbreak of the cholera epidemics, and during their prevalence, there are observed three other kinds of diarrhoea, which are not only the continuation of the preceding, but are also three more advanced expressions of the cholera intoxication. The first category is that in which the cholera in certain localities does not pass beyond this diarrhoea, while in neighboring situations it acquires its full development. The second category is that which invariably precedes the development of individual cholera, and constitutes its first stage. The third category is that which limits itself to certain quarters, streets, or sides of streets which usually escape such attacks in virtue of an exceptional immunity. He then proceeded to show that these three classes of diarrhoeas are only expressions, varying and graduated, of the cholera intoxication.

4. He had proved that before the collective explosion of the cholera, and before the date assigned to such outbreak, there were always some cases of real cholera, though isolated and unnoticed or reported as *cholera nostras*. So that it might be said that the *official* cholera always arrived after the *real* cholera,—that which is surrounded by the prodromes of the epidemic and manifests itself almost always at the same time, and on the same day, if not the same hour, in different quarters. This has been observed in all the epidemics.

5. Contrary to the doctrine of importation is the fact that different parts of France have continued for months, if not for a year, in daily communication with different centres occupied by cholera, without contracting the disease, and when the epidemic did appear in some of them, as in Paris in 1832 and in Havre in 1873, it was impossible to discover a single fact which would be able to support the pretext of importation.

6. The contagiousness of cholera,—a contagiousness established by a number of incontestable observations,—which he had always admitted, constitutes only a relative or subordinate fact for the localities, for the individual, and for the disease it-

self; to the preceding conditions of aptitude, receptivity, and contingent activity, which explain wholly the impotence of transports to long distances, and the frequent sterility of individual contact.

7. Finally, the epidemics of cholera are subject to laws which govern the evolution and propagation of other virulent and infectious maladies; and the different denominations into which the forms and degrees of cholera—real, cholera nostras, and cholera sporadic, epidemic, or Asiatic—have been arbitrarily separated have no more reason for their existence than if the same titles were applied to smallpox, scarlatina, or measles, in their various clinical manifestations.

8. In conclusion, and as practical and logical consequences of the foregoing facts, the sanitary measures employed to-day [in France] in order to prevent the spread of the Asiatic cholera should be for the most part considered effete institutions, which some day will be replaced by the system of house-to-house visitation,—a system inaugurated as long ago as 1849 in England, where, out of one hundred and thirty thousand cases of premonitory diarrhoea, properly proved, only two hundred and fifty developed into fatal cholera asphyxia.

ELECTRICITY AS A PROTECTIVE AGAINST CHOLERA.—M. Romaine Vigouroux, in a short communication to the *Progrès Médical*, No. 29, announces his conviction that electricity, applied in the form of the electrical bath of several minutes' duration daily, is able to exercise such an influence upon the organism as to enable it to successfully resist cholera. He concludes that among the means generally approved as prophylaxis in cholera, statical electricity practised daily is the method whose efficacy is the most probable. It acts by the development of ozone,—an antiseptic *par excellence*,—and by the stimulation of all the functions of the organism, and especially of nutrition.

THE TRANSFUSION OF PEPTONIZED BLOOD.—M. Afanassiew, acting upon the knowledge that blood containing a certain proportion of peptone loses the property of spontaneous coagulation, has experimented with peptonized blood in transfusion. He reported that the results in animals were very encouraging.—*Le Progrès Médical*, June 21.



PHILADELPHIA  
MEDICAL TIMES.

PHILADELPHIA, AUGUST 23, 1884.

EDITORIAL.

THE STATE LUNACY BOARD.

IN the face of some opposition from certain quarters whose vested interests were supposed to be threatened, a law was passed last year establishing a permanent commission in lunacy in the State of Pennsylvania, to which, as our readers will remember, some of our most prominent and able citizens were appointed by Governor Pattison. The board, immediately after organization, went promptly to work, inspecting the various public and private asylums and hospitals for the insane, and investigating the general plan of treatment of patients, as well as supervising their commitment and discharge. They have also given attention to the poorhouses and other localities in which the insane have been kept, and have been instrumental in the removal of a number of such to the State hospitals, where they now receive proper care and attention. Among the abuses that have been brought to the knowledge of the members of the commission is the secret confinement of insane or weak-minded members of families by their relatives, such unfortunates being, in some instances, treated with inhuman neglect, fed on food of the poorest quality, improperly clad, and but partly protected from the inclemency of the weather.

Within the year, several aggravated cases of this character have been brought to the notice of the board. One had been kept chained in an outhouse for twenty-five years, naked and filthy, but, before he could be removed from his surroundings, death had released him from his pitiable state. The other patient was a case of dementia, who for over thirty years had been kept

in a hut, in which he was found by the board without a particle of clothing except an iron bracelet around one of his ankles, attached by a rusty chain to a post in the ground: the movements of the man in thirty years having worn a deep groove in the iron staple to which it was fastened. This harmless old man was removed to the Warren Hospital, where he now is properly clothed, and, if not in his right mind, he at least has enough intelligence to be pleased with his improved condition.

The accidental discovery of these two cases within such a short time leads to the suspicion that there may be others that need to be "saved from their friends." In order to ascertain if there are any others in such a sad condition, the board will presently address a circular to every physician in Pennsylvania, requesting information of any such cases, promising that confidential communications shall be respected.

The friends of the measures taken to protect the rights of the insane were gratified by the excellent appointments made by the Governor in creating the Lunacy Board, and we think that the first annual report of its labors will not only furnish cause for congratulation, but also abundantly justify the law which called it into existence.

HYPERPYREXIA.

IT would be entirely unnecessary to repeat so obvious a truth as is contained in the statement that the temperature record does not express all that is known of the febrile state, were it not that since the use of the thermometer in clinical medicine has become general there seems a tendency to consider increased temperature and fever as synonymous terms, and to rely too exclusively upon the body-heat as indicating the presence or absence of fever and its degree,—a certain marking of the mercury being interpreted as py-



rexia, another as hyperpyrexia. There can be no objection to the use of the term normal, or sub-normal, or hyper-normal, but, as Dr. Goodridge very justly asks in the *Practitioner*,\* "Is there not some want of scientific accuracy in the way in which this term hyperpyrexia is currently used in the profession?" High temperature, as indicated by the clinical thermometer, may be brought about by other conditions than pyrexia or fever. Muscular exertion alone can elevate the temperature; this is often observed in children, but it is most marked in adults after tetanic convulsions, due simply to the increased production of heat. On the other hand, the bodily temperature may be raised under circumstances which interfere with heat-discharge, this being relatively diminished, though perhaps absolutely increased. Thus, in certain cases of heat-stroke, both theory and practice agree that heat-retention is the source of danger, and the object of treatment is to increase the heat-discharge. In this case, also, the thermometer cannot be said to express correctly the degree of fever, because the elevation of temperature is not due to fever. It is also well known that after injuries of certain portions of the nervous system, especially of the pons Varolii and the upper portion of the spinal cord, the surface-temperature of the body is rapidly increased. In the words of the writer already quoted above, "These several conditions, then, excessive heat-production, arrested heat-discharge, and deficient heat-regulation, all having for result elevation of temperature in common with fever, and tending more or less to develop into it, I submit are yet distinct from it; and if, for convenience' sake, the nomenclature of fever be applied to them, and they be regarded as in a sense its clinical allies, it should be remembered, at any rate, that they are not its pathological equivalents."

Regarding fever, therefore, as a complex process having a number of factors and varied in its manifestations, we recognize the fact that increased temperature is but one, and frequently not the most important one for the physician to consider, and have thought it well to direct a word of warning against a too exclusive reliance upon the indications of the thermometer, in the diagnosis and prognosis of pyrexia.

#### LICHEN TROPICUS.

PHILADELPHIA has been justifying its reputation as a summer resort so effectually this year that excessive perspiration, and its accompaniment, the so-called "prickly heat," have been less commonly noticed than usual. Still, there are in the community some persons with irritable skins who suffer greatly from the itching and burning of the eruption upon the body, which they seem especially subject to in hot weather. Although the eruption seems to be connected with sweating, yet that it is not due to want of personal cleanliness is a matter of common observation. The patients are generally fleshy, and often scrupulously clean; they have a delicate skin, and perspire readily on slight exertion. General measures, such as reducing the nitrogenous food, alkaline baths, the avoidance of irritating soaps, frequent change of underclothing, are useful in relieving the tendency to eruption, but sometimes fail to prevent its recurrence. A correspondent in the *Lancet* reports a case where the substitution of flannel for the light merino underwear seemed to be the one thing needful in curing the patient, who, previously very subject to it, was free from it afterwards. The application of hot water to the eruption will relieve itching, whereas scratching seems only to aggravate the malady. What chilblains are to winter, prickly heat is to summer, and, although trifling, they are capable of causing much annoyance and discomfort;

\* Article on Hyperpyrexia, July, 1884.



they certainly are not beneath the notice of the physician, who may find his resources for relieving them sometimes severely taxed. Indeed, the recommendation to wear the underclothing rough-side out in hot weather will often win more grateful appreciation from a patient with an irritable skin than a magistral prescription.

#### SCIENTIFIC MEETINGS IN SEPTEMBER.

**D**URING September this city will be honored by the session of the American Association for the Advancement of Science, and by the Electrical Exhibition of the Franklin Institute, each of which, in addition to its intrinsic attractions, will bring to us honored guests from abroad, who, we hope, will carry away with them on their return many pleasant impressions of the City of Brotherly Love. Among those who are expected to be in attendance upon the sessions of the Association for the Advancement of Science we notice the names of eminent physicians from all parts of the world, thus affording to our local medical societies an opportunity, which they will doubtless improve, of maintaining the reputation of our city for hospitality.

In the Electrical Exhibition it is proposed to have a department for the express purpose of showing the useful applications of electricity to medicine, which will contain, among the latest improvements, some novelties which will probably be both interesting and profitable to the profession. What with the sessions of the Society and the visits to the Exhibition and the entertainment of distinguished guests, it may be safely predicted that the physicians of Philadelphia will have no idle time on their hands.

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SIR ERASMUS WILSON, LL.D., F.R.S., the great English dermatologist, died in London, August 8, aged 75 years.

#### NOTES FROM SPECIAL CORRESPONDENTS.

##### RECOLLECTIONS OF STUDENT-LIFE ABROAD.

###### VIENNA.

**T**O those familiar with the Kaiserstadt in 1870, what changes are noticed on every hand to-day! Not only has the "Imperial City" changed its outward appearance by adding multitudes of palatial buildings and covering vast spaces where once the green fields delighted the eye, but much that was interesting and picturesque has disappeared forever. The historic bastion where the Austrians so gallantly hurled back in defeat the savage Turks is not the least of the landmarks of fourteen years ago that is missed to-day. I may add that the character of the Viennese has also undergone a marked change, and, I believe, not for the benefit of the foreign visitor.

When we consider the fearful inroads death has made in the medical faculty of Vienna, unequalled in modern times, the list is almost appalling: Profs. Skoda, Oppolzer, Rokitansky, Hebra, Hyrtl, Sigmund, Dummreicher, and many other stars of lesser magnitude, have ceased to shine and enlighten the profession by their brilliant labors.

What names in medical annals are these! My memory recalls the mourning city and the almost regal pomp displayed at the funeral of Oppolzer. Nowhere are funerals more lavishly conducted than in Vienna, where it is a common sight to see a band of music playing at the funeral of a child; but this funeral of the great diagnostician almost surprised the Viennese by its magnificence. Indeed, it was scarcely excelled by that of the great Admiral Tegethoff, which occurred so soon afterwards. I remember how universal was the mourning, and how benumbed was the body medical by the loss of such a prominent member,—to the poor a great loss indeed. But upon this theme I must not enlarge.

The foreign student in Vienna fourteen years ago enjoyed, besides many privileges, an exemption from much that worries his successor of the present time.

The great Allgemeines Krankenhaus (General Hospital), with its three thousand patients and one hundred and fifty instructors, then afforded many comfortable rooms at reasonable rent for those who wished to reside in the hospital. These enjoyed the opportunity of being called at any time, day or night, to interesting and rare cases in the different departments, but especially in obstetrics. I remember that on one occasion I was called to witness the Cæsarean section,—a favor which I highly prized.

A small fee to the watchman would enable



one to see many cases which outsiders knew little about. The private courses also were cheaper, longer, and more satisfactory than now; greed had not then seized upon the minds of the *privatdozenten* as it seems to have done at present; Austrian students were less jealous; Americans and English were more united in a common brotherhood, and ill fared the natives who dared interfere with the members of such a corps. Perhaps the luckless adventures of the great Bavarian bully, and the severe handling received by him from a gallant little doctor of Charleston, South Carolina, may not be forgotten by those who witnessed the affair. Those were certainly the "good old times."

The morning work began at the post-mortem rooms in the pathological building, and considerable fun was looked forward to by the students who were daily witnesses of the quarrels between Rokitsansky and his old servant. Often in the midst of the profoundest researches this veteran pathologist would stoop to quarrel in considerable earnestness with his faithful servant. Standing over the body during its dissection, he would hurl his irritable remarks at his unlucky attendant. Undoubtedly many young doctors have wished that they even knew as much of pathology as the rough *diener* of the Father of Pathology. Rokitsansky received at last from his emperor the baron's title, and it was said that at that time he had attended or supervised fifty thousand post-mortems. Then to the clinic of Hebra, with his cruelties and his wit,—now filling us with anger and pity, and then convulsing us with laughter and dazzling us with his skill; the poor patients, trembling with fright, standing with a cork or wooden plug jammed into their mouths to chew upon in the intensity of their anguish, and Hebra scolding and grinding into the quivering flesh, causing the most exquisite tortures. What a scene it has left on the memory of those who witnessed it! Who can forget the short, ugly man, in his very rough woolly coat and his large gold spectacles?—a very demon of heartlessness he seemed to me. Then few will forget the horrors of the clinic of Sigmund, where he used to sit nervously slapping the napkin on his knee and calling out, "*Weiter, weiter, WEITER!*" The drawing, sleepy, even lazy lectures of the distinguished Braun,—those who listened to him will long remember his peculiar manner. How different the lively, eloquent Latin orations of Hyrtl, where anatomy was made fascinating! His pronunciation of Latin and his familiarity with it in every detail made his lecture-room crowded with scholars who otherwise cared little for his subject. Hyrtl made his ordinary lectures in German almost a perpetual pleasure, and his anatomical specimens have been the marvel and despair of anatomists ever since he discovered his process. To see one of his

specimens, showing even the finest circulation, a perfect net-work of arteries, and the flesh removed by his wonderful skill, is worth a visit to Vienna. He used to assure us that the process was no secret,—that any one could do it *with patience*; but who has yet penetrated the mystery or can imitate the master? His private collection it was a treat indeed to be permitted to visit, and a place in his private dissecting-room was an honor few of us could enjoy, and its possession one of the greatest privileges the writer ever possessed. The light has ceased to shine, and to no one has he left his mantle, although more than one of his assistants had learned to wield the scalpel with much of the teacher's skill.

The brilliant operations of the dignified and gifted Dummreicher are still remembered with pleasure,—somewhat eclipsed, to be sure, by that "lion of surgery," Billroth. What fields of professional clover the student of 1870, 1871, and 1872 in Vienna fairly revelled in! And Vienna was a cheap and merry place in those days. The "Riedhof" and the "Gasthof zum Goldenen Schlüssel," on the Schlüssel-Gasse, quite near the main entrance to the Allgemeines Krankenhaus, were favorite resorts for American and English medical students. What the Latin Quarter was to Paris is the Alsergrund to Vienna.

Let me recall an incident of student-life at that time. No one who shared in the festivities of the Fourth of July, 1871, can forget what a merry gathering it was, and in every respect a success. The long table in a private hall of the "Riedhof" was filled with medical guests, and toasts and songs made it a lively occasion. The meeting was presided over by a dignified and distinguished physician from Baltimore, who won all hearts by his patriotic and elevating speech. At about two o'clock in the morning the good man retired, "to leave the boys to their fun." An unfortunate waiter hurt his head by an accident, but his wounded feelings were quickly healed by a most liberal contribution taken up and presented to him by the guests. In Vienna, pleasures were tempting, and student-balls, operas, concerts, and theatres could then be enjoyed for what would seem little expense to-day.

Suburban excursions, horse-racing, riding and driving, and steamboat-trips on the Danube, made life a holiday indeed. A merry, happy city, but more tranquil and satisfying than to-day. How changed it is now to those who knew and really loved it then!

"Es giebt nur ein Kaiserstadt,  
Es giebt nur ein Wien."

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The student contemplating a visit to European schools, whether he be a post-graduate or not, should weigh and examine the matter carefully before starting; and perhaps from



one who has spent many years in such schools a few hints may be received with profit.

In general, it would be best to go directly to Germany, leaving the French and English hospitals to be visited on the return towards home. I do not wish to be understood as undervaluing study in London, Dublin, and Edinburgh, but it is better to do the hard work on the Continent first, while the spirit is ready for some self-denial. It is easy to get careless and superficial, if the order is changed. It is best to enter Germany by Bremen; and the steamers of the North German Lloyd are unequalled for comfort and not excelled for safety; and the ten days spent *en route* really gives one considerable opportunity to get introduced to the language, and possibly to people who may be of service on landing and afterwards. For one who has studied German it develops the practical working needed, and for others it affords a foundation for future study which is very desirable.

To rush at once to Berlin or Vienna is not now to be recommended, but, instead, I would advise passing a semester at Freiburg, Wurzburg, or Munich. Of course, many have but a few weeks or months to do Europe in, and for these no plan for genuine study can be offered: the *éclat* of foreign study upon their return must be their great reward.

#### FREIBURG.

Freiburg, in Baden, beautifully situated on the borders of the Black Forest, possesses advantages for the genuine student well worth considering, although it receives comparatively little attention from foreigners. In the first place, Freiburg affords the best climate, summer and winter, of any university town in Germany; and this is really of the greatest importance to many Americans. Secondly, it is the cheapest place to live in, and one of the happiest, enjoying excellent theatre and opera privileges, concerts, and good society. For the student of medicine Freiburg has a good laboratory, physiological experiment-rooms, and well-managed dissecting-rooms, and a hospital for surgical and medical cases under the best possible government. The medical faculty is well known for its high standing. It is worth while to mention that Prof. Baumbler, the distinguished specialist in diseases of the chest, has spent some years in England, and his valuable assistance and kindness are ever ready for English or Americans. Freiburg is not so much out of the way as its geographical position would seem to indicate. Munich and Vienna are both easily reached from here by the express from Paris. A semester at this university is time well spent, and from here, after acquiring something of the language and professional technicalities, it would be well to go on to Munich and Vienna.

#### MUNICH.

Probably no city in the world offers more to every professional man than Munich. Rich in art, in music, in libraries and collections of all kinds, it is interesting to everybody and fascinating to most people. Much has been written against the climate of Munich, but, unless one is really very sensitive to changes, the average student, with proper care in the selection of *healthy apartments*, and avoidance of water-drinking and of late hours, will find little to complain of in the climate. It is not a health-resort like Freiburg, but is much to be preferred to Leipsic, Wurzburg, Tübingen, or Heidelberg. The university is one of the oldest and richest in Europe. The grand *aula* is probably unequalled by any in the world, and the standing of the university is very high. The advantages for the medical student are very great.

Without attempting to claim more for Munich than justice will allow, it can be honestly said that, comparing the medical advantages of Berlin with New York, and Vienna with Philadelphia, Munich might be compared to Boston. The character of the medical faculty is very high indeed, and the opportunities for deep study are not excelled anywhere.

Prof. Von Gieth, the dean, is an earnest worker, and very kind and attentive to foreigners. Nussbaum, called "the Napoleon of Surgery," is a great favorite, and reminds one more of American surgeons by his dash and boldness in operating.

The hospitals of Munich are accessible and well managed. The lying-in hospital is probably one of the best of its kind to be found anywhere. Under the late Von Hecker—its lamented head—it won great reputation. It is so constructed that, the first ward being filled, no new cases are received in it until all at present occupying it have recovered or been discharged. It is then thoroughly cleansed and disinfected, remaining empty until all the other wards have had their turn. In this way puerperal fever has become a rare event in the Munich Lying-In Hospital.

The requirements for graduation at Munich are membership of the university, besides membership of the medical department of the university, certificate of five years' medical study, lectures, and hospital experience, and attendance on many cases of obstetrics, certificates of character, proficiency, and citizenship, and a deposit of about four hundred guldens for the expenses of graduation. The candidate is recommended after application by the medical faculty, and his papers are examined and voted upon by the senate of the university. If accepted, he is notified to prepare for examination, the fee for which is three hundred guldens\* and is not returned in case the applicant fails, but he is allowed a second examination at the end

\* About one hundred and fifty dollars, gold.



of a year. The medical faculty invite the candidate to meet them on a certain day and hour at the hospital for practical medical examination. After entering the ward, a certain patient is selected for examination, for whom diagnosis, prognosis, and treatment must be made, and afterwards the medical history written. In the event of death occurring within twenty-four hours, the post-mortem must be made and reported also. The candidate, if successful, receives a second invitation to meet the faculty in the surgical ward and examine and treat a surgical case; afterwards, an order requiring him to attend a case of obstetrics at the lying-in hospital, and report its progress and termination.

The practical examinations having been accomplished with success, the candidate is next invited to present himself at the faculty's office to receive written questions requiring written answers. Upon entering the office, a "cocked hat" (three-cornered paper) is handed him sealed, upon opening which he finds not less than three questions nor more than six, and these upon one department of medicine,—i. e., surgery, obstetrics, anatomy, etc. The writing of these papers must be done at the faculty's office, in a room reserved for that purpose; the room contains a long table, a few chairs, and plenty of paper and ink. The *hausmeister* and a member of the faculty are present. No notes are allowed, and the candidate cannot leave the room except under escort of the *hausmeister*. A failure to answer any one of these questions terminates the whole examination. If the questions are not answered before the end of office-hours, they are forfeited. The written examination in the several departments of medicine occupies about one week. There is no regular order: surgery may lead, or pathology, so that it is difficult to prepare for the next day's work.

The written examinations having proved satisfactory, the candidate receives an invitation to meet the faculty at the same place some evening specified, for oral examination. He comes in full dress, and is shown into the same room where he has wrestled with written questions. Around the same table he sees the medical faculty, the venerable dean presiding, and opposite, at the end of the table nearest the door, an empty chair, which will prove an anxious seat for him before the evening is over. More to be dreaded than the faculty is a deputation of three students, who are permitted to listen, but, fortunately, not to ask questions. On the table is a box containing numbers, and, to the right of the candidate, his first examiner, who has a book of numbered questions on the different departments of medicine.

The candidate reaches forward his hand and draws from the box a number,—say 17,—which he hands to his examiner, who, turning to question No. 17, examines him for

about fifteen minutes. Any member of the faculty can ask questions after the examiner has ended. The next examiner takes the book, another number is drawn, and the same process gone through with. Finally, the candidate is escorted to the library, there to wait the voting of the faculty. Anxious moments these. At last the slow footsteps of the old *hausmeister* are heard approaching; the heart beats faster and the moments seem long; he beckons the candidate and whispers his success. The dean rises and announces the termination of the examination, and, if the candidate has been successful, the honors, if any are decided upon, are declared. Congratulations follow, and the meeting is ended. Another invitation to meet the faculty at the university *aula*, for the ceremonies of graduation, ten days later, is received. The *promotions-vortrag*,\* if not already completed, must be finished and sent to the dean, the *thesen*, or arguments to be used with the faculty, must be selected by the candidate and sent to the dean, the programme of the graduating-exercises must be printed, and, a few days before, carried in person by the candidate to each member of the faculty and to high officials of the university. To do this in proper style, the elegant university carriage, upholstered in blue and white (the university colors), is sent to convey the student, now the successful candidate. The coachman and footman are in livery, and the *doctorand*, in full dress, wearing a dress-sword and carrying on his arm a real cocked hat (not the paper torment of the examination), presents a copy of his programme and a polite wish that the distinguished professor shall honor him by being present at his graduation. The eventful day arrives; slowly the gorgeous university carriage drives up to the door of the house where the candidate resides; not a few collect to see the show; away it goes at last and reaches the fine buildings of the university. In the hall a procession is formed. The beadles, bearing the sceptres of the university, lead the way; they are in velvet and black silk gowns, not unlike those of the professors. Next comes the secretary of the university, in tight-fitting uniform covered with gold lace, and wearing a sword. The candidate comes next, in full dress, white cravat and gloves, and dress-sword; then the faculty, in black silk gowns, trimmed with velvet; then the dean of the medical faculty, in green silk gown with green velvet trimmings and green beretta; lastly, the rector, or president, in scarlet robes, with massive gold chain and seal of the university. The procession files into the grand *aula*, a beautiful room, adorned with pictures of princes and potentates. The rector is conducted to his chair, the dean ascends to his dais, the professors take seats at long tables right and left, the

\* Corresponds with our thesis.



secretary at his table, and the candidate on an elevated seat just before and below the dean. A railing separates the students from this part of the hall.

The secretary proceeds to read the object of the meeting and the authority of the faculty granting the degree of doctor of medicine about to be conferred. The secretary also reads the name, birthplace, and antecedents and medical history of the candidate. The candidate then reads aloud his *promotions-vortrag*, which being completed, the professors question him publicly concerning his *thesen*. These formal questions being ended, the beades advance, the sceptres are crossed before the candidate, and he is requested to remove the glove from his right hand, which he places upon the sceptres, and repeats after the secretary the oath of Hippocrates. This being done, the dean rises, removes his beretta, and says, "By the authority vested in me as dean of the medical faculty," etc., etc., "I now extend to you my right hand and greet you as colleague." The newly-made doctor is then brought before the rector, who congratulates him and offers some advice for his future welfare. The procession then reforms, the order reversed, and leaves the hall, and the ceremonies are at an end. The young doctor has commenced his career; the world, with all its doubts and fears and troubles, is before him.

#### LEIPSIK, BONN, AND HEIDELBERG.

We have briefly considered three of the medical schools of Southern Europe. Leipzig and Bonn are excellent schools, but nearly, if not quite, as expensive as Berlin. The student of chemistry will find in Leipzig probably the best managed chemical laboratory in the world, and also remarkable advantages in physiological experiment. One of the most interesting lecturers and most celebrated professors has long since been called to his rest (no one has yet been able to quite fill the place of the gifted Wunderlich: his presence is still felt, and his teachings are accepted over the whole world). Leipzig is a pleasant place to live in, and is quite a healthy town, but is not so valuable for the student as Munich, where one seems to live in an atmosphere of professional study and investigation. Bonn is somewhat lonely, and, although the professional advantages are good, they are not to be compared with the other places already mentioned.

Tübingen, near Stuttgart, although possessing a hospital incomparable in its appointments,—a perfect model in all that a hospital should be,—and having a medical staff of great ability and activity, is really out of the way for the student, and a very lonely, uncomfortable place for Americans.

Würzburg is a very handsome city, and has a good hospital, and the high standing of its medical school is well known. It is a cheaper

city than Munich, but, of course, smaller and less inviting. The removal of Prof. Von Bergmann is a great loss, and his place will be hard to fill. The medical faculty has a hard-working reputation, and the advantages for the student are very great indeed. The clinic for gynecology of the celebrated Scanzoni is disappointing, and his assistants are not what one would be led to expect: it is certainly very much inferior to that of Hegar in Freiburg.

Heidelberg is not so much resorted to by American medical students. Its character for wild dissipation and the smallest possible amount of study has prejudiced most parents against it as a desirable school for their sons. Nevertheless, it has many excellent professors and some advantages, and studious men can always be found there.

It is impossible in this paper to mention all the medical schools of Germany: only those which the writer has visited and can speak from personal experience concerning have been noticed. For the American student who has time to spend in real study, Freiburg, Munich, and Vienna are recommended above all others on the Continent to post-graduates.

Since 1870 the excellent medical schools of our own country have taken giant strides forward; and, although much of this improvement has been owing to the influence of the vast numbers of our profession who are familiar with foreign schools and have brought back rich treasures to add to our own, still the *worth* is showing itself here, and Philadelphia is fast becoming the rival of Vienna. It is really very doubtful if, in honest, practical work, the American student can gain very much by going abroad to-day, except to elevate his general intelligence by travel, to gratify his curiosity, or to compare the foreign system of treatment with his own. When we consider the eminent professors of Philadelphia, New York, Boston, and other cities, we may well feel pride in our own institutions and look forward to the time when foreigners shall seek our medical schools in large numbers for improvement, which I believe they could actually obtain at present in many departments. It may be well to quote here from one of our most distinguished professors, Dr. Roosa: "Whatever may have been the additions that the medical profession of this country have made to the common stock of knowledge,—and they have been neither few nor unimportant,—they would have been largely increased by facilities at all equal with those enjoyed in the Old World. We have the men with the brains, but, alas! up to this time, the educated people have about decided that, whatever they may do about ministers, lawyers, and teachers, doctors must educate themselves. By the aid of their fellowships, endowments, and other university establish-

\* A Doctor's Suggestions to the Community, p. 81.



ments, the workers of England, France, and Germany have been gathering harvests for decades from fields in which we have only put in here and there a sickle."

"Chill penury repressed their noble rage,  
And froze the genial current of the soul."

W. THORNTON PARKER, M.D. (Munich).  
FORT UNION, NEW MEXICO.

#### IPECACUANHA IN CHOLERA.

**M**R. EDITOR,—From the editorial in the *Times* of 9th instant, it unexpectedly appears that views expressed some time ago upon the therapeutic virtues and possibilities of ipecacuanha have borne fruit. I take occasion, therefore, to say to those interested that the quieting effect of ipecacuanha in cases of severe intestinal pain, with and without gastric and intestinal disturbance, continues a matter of frequent experience. It is particularly in cases where there is no mechanical irritant that its usefulness is best shown. The diarrhoea and vomiting induced by offending ingesta, of course, require their removal as a preliminary step. But there are numerous cases of severe enteric suffering where there is no such foreign body, or where it has passed away leaving this nervous disturbance. And many of the severer cases of cholera morbus, at least by the time a physician sees them, have no mechanical cause present. The agonizing abdominal pain so frequent in the warmer season, and depending especially upon intangible causes, and this whether vomiting be present or not, will yield with greater promptness to large doses of ipecacuanha carefully given non-emetically than to any other treatment that is familiar to me. I do not deny that vomiting directly depending upon the drug sometimes comes on; but even in such cases it is less distressing than the pathological state it supersedes.

I do not believe that ipecacuanha is a sedative in the therapeutical sense of that word. It is a sedative to the patient in allaying his suffering and calming his distress, but I believe it accomplishes this by stimulating, not depressing, the organic nerve whose loss of power is the pathological cause. It is on this ground, as more fully explained elsewhere, that I think similar treatment may be as serviceable in true epidemic cholera as it has been found to be in the endemic cholera morbus.

ALFRED A. WOODHULL,  
Major and Surgeon, U.S.A.

DAVID'S ISLAND, NEW YORK, August 15, 1884.

[In another column may be found a statement made before the French Academy by Dr. Guérin, whose experience entitles his opinion to respectful consideration, that there are not two kinds of cholera, and that, in their

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pathology, cholera morbus and cholera Asiatica are identical, except in the matter of prevalence. Whether this be true or not, a valid argument in favor of the trial of ipecacuanha in non-emetic dose in epidemic cholera, as advised by Dr. Woodhull, exists in the fact that it has been used with success in sporadic cholera.—EDITOR P. M. T.]

#### PROCEEDINGS OF SOCIETIES.

##### PHILADELPHIA COUNTY MEDICAL SOCIETY.

**A**T a meeting of the Philadelphia County Medical Society, held May 28, 1884, Dr. William M. Welch, President, in the chair, Theophilus Parvin, M.D., read a paper entitled a

##### REPORT OF THE OBSTETRIC DEPARTMENT OF THE PHILADELPHIA HOSPITAL FOR THE QUARTER ENDING APRIL 30, 1884.

By the kindness of Dr. Bernardy, my associate in term of service at the Philadelphia Hospital, the entire charge of the obstetric department was given me, while he had that of diseases of women and children. It seemed to me that by this division of labor both the interests of patients and of medicine would be best subserved, and I desire publicly, as I have done privately, to express my gratitude to Dr. Bernardy for his consent to this arrangement. Further, let me gratefully acknowledge the zealous and faithful work of the *internes* serving under me, in the collection of statistics and making observations, without which the preparation of this paper would have been impossible. My debt to these gentlemen, Drs. Phillips, Parkhill, Randall, Lazarus, and Voorhees, is very great. Some of the statistics and observations, or their results, have been given elsewhere, others will be presented you now, and still others wait another opportunity.

And now, gentlemen of the Philadelphia County Medical Society, unexpectedly invited to read a paper before you, and thanking you for the honor, my endeavor will be to present facts rather than theories, results more than reasoning, hoping that possibly some of the facts and results may be of present interest and of future use, and knowing that the discussion they may evoke will have these characteristics.

During my term of service at the Hospital seventy-two women were confined. This number, however, includes two cases of premature labor and one of miscarriage at six months and a half. There was one case of twins. In sixty-nine cases the vertex presented; presentation of a foot, of the breech, and of the shoulder each occurred once; the presentation in the case of miscarriage is not given.



Forty of the seventy-two mothers were primiparae. Of seventy-three children born, thirty-nine were females and thirty-four males,—a preponderance of female births which is at least remarkable.\* Fifty-one of the mothers were white, twenty-one black. The average weight of the white children was seven pounds and a little more than two ounces, that of the colored children seven pounds thirteen ounces and a fifth. There was thus a difference of eleven ounces in favor of the latter. The heaviest child was a white one, its mother a primipara. Its weight was nine pounds and twelve ounces. Comparing the difference between white male and female children, it was a little more than one pound,† while the corresponding difference in black children was only two ounces and one-fifth. Of course the number of cases observed is too small to allow a positive conclusion, but it suggests that the difference between the two sexes in the white and in the black race in regard to weight of the new-born is much more marked in the former than in the latter. If the results obtained in these limited observations should be confirmed by more extensive ones, we would have a race-distinction which is in perfect correspondence with a known ethnological law.

As to the average weight of the new-born, I may repeat what has been published elsewhere. At my request Dr. Phillips found, from examination of the Philadelphia Hospital records of white children born there, that this weight was seven pounds four and eight-tenths ounces. The number from which this result was obtained was one thousand,—five hundred males and five hundred females. The average weight of the males was seven pounds seven and nine-tenths ounces, while that of the females was seven pounds one ounce and seven-tenths.

The average duration of labor in the black women was very nearly fifteen hours, while in the white it was thirteen hours and twenty-five minutes, showing a difference in favor of the latter of more than an hour and a half,—that is, labor is shorter in the white than in

the black women. This result is an unexpected one; nevertheless here again the number of cases is too small to justify a positive conclusion. The duration of labor in white primiparae was fourteen hours nine minutes; in black, nearly eighteen hours; in white multiparae, twelve hours forty-two minutes; in black, ten hours sixteen minutes. The duration of the third stage of labor was in the whites twenty-one minutes, and in the colored thirty-three minutes.

And here let me, for the time at least, lay aside these statistics to consider the conduct of the third stage of labor. The subject invites consideration in this paper by the following facts. One of the colored women failing to expel the placenta within an hour after the birth of her child, the gentleman having charge of the case introduced his hand into the uterus and removed the after-birth by piecemeal, or at least the greater portion of it. That patient had septicæmia, and infected each of her neighbors. The colored obstetric ward at this time was terribly crowded, the beds so close together that a patient could almost roll from her own bed into the next one.

Shortly after this I was called to a woman in one of the white obstetric wards, who had been delivered of her child three hours before, but the placenta was retained. The patient's pulse was good; there was no hemorrhage, nothing but the simple fact of delay in the third stage of labor. A little friction of the uterus and compression of its fundus through the abdominal wall caused the expulsion of the placenta in a few minutes. There was no fragment of the after-birth or of the membranes retained. The genital organs of the patient were not touched either by the *interne* or by myself in this delivery, nevertheless she had septicæmia. Finally, a third patient had the placenta retained for nearly five hours, and then it was expelled. She had septicæmia. These three patients recovered.

In studying the phenomena of placental delivery, we find there are three stages,—viz., first, the separation of the placenta from the uterus; second, its extrusion from the uterine cavity after its conversion into a foreign body by its detachment; and, third, its expulsion from the vagina. Delay may occur in any one of these stages, that in the last, of course, being the most easily remedied. The separation of the placenta from the uterus is made by uterine retraction, and probably, instead of being marginal in some cases, central in others, is usually general.

A practical question is here presented: Is this separation facilitated by ligating the placental end of the cord? In other words, Ought the obstetrician to use two ligatures or one? The advocates of two ligatures claim that in this case the placenta, being larger, fuller, firmer, cannot so well follow the retraction of the uterus as it can if thin and

\* The general relation between female and male births is 100 to 106. Illegitimacy slightly lessens this proportion,—that is, increases the number of females born; and this is a factor adding to the number of female births at the Philadelphia Hospital, for illegitimate births are there the more numerous, but still it is not sufficiently potent to entirely reverse the law. This abnormal disparity between male and female births is not a mere accident of the three months, for, taking all the births of 1882 and 1883, and adding those of the first quarter of 1884, I find the number is 371, and of these 173 were males and 198 females. It would be interesting to examine the hospital record for a long series of years and ascertain if this disparity is the same; and this it is my intention to do.

While referring to the normal relation between male and female births, and the effect of illegitimacy upon it, I may mention the curious contradiction of these laws given by the statistics of Roumania. These show that the proportion of female to male births is 100 to 116, and, further, this proportion is not changed by illegitimacy.

† The difference in the weights of white male and female children is greater than it should be, from these facts: first, a larger number of female children; second, in two cases of premature labor and in that of twins the children were females, and their weights being small of course reduced the average.



flexible from the loss of blood, and therefore in the former case is more certainly and completely detached. This is doubted by some, denied by others; nevertheless it seems rational. But, admitting its truth, it is certain that if a single ligature be used the placenta is smaller, and hence can pass through a smaller uterine orifice. This practice, no matter what its effect upon the first, facilitates the second stage of placental delivery.

After uterine retraction has separated the placenta, uterine contractions expel it into the vagina, while the abdominal muscles, aided, it may be, in some slight measure by the contractions of the vagina, cause its final expulsion.

In the spontaneous discharge of the placenta from the uterus, it does not seem yet settled whether the placenta usually presents the foetal surface or the margin at the os uteri. The doctrine of Matthews Duncan has probably for the last few years been most generally adopted by British and American obstetricians; my own belief is that it is correct: at least in some thirty cases of delivery, taking the method advised by Dr. Duncan to test the presentation, I found in the majority that the placenta descended through the os with its margin presenting. French obstetricians have not accepted Duncan's views; and indeed the recent observations of Pinard and others seem to prove that the placenta usually presents by its foetal surface.

Now, a practical lesson from this study of the mechanism of placental delivery is that, adopting the view of Duncan, traction upon the cord—a traction which of course is never to be made when the placenta is still attached to the uterus—is mischievous, for it interferes with the normal presentation; but if the normal presentation be that of the foetal surface, such traction facilitates the second stage of delivery.

The time required for the spontaneous delivery of the placenta, as observed by Kabiserske in one hundred cases in the Strasburg Maternity, varied from thirty minutes to twelve hours, as is shown by the following table:

24 times . . . . .	30 minutes.
20 times . . . . .	1 hour.
25 times . . . . .	2 hours.
11 times . . . . .	3 hours.
9 times . . . . .	4 hours.
5 times . . . . .	5 hours.
3 times . . . . .	6 hours.
2 times . . . . .	8 hours.
1 time . . . . .	12 hours.

Few practitioners are willing to trust nature this far, but guard against delay in the delivery of the placenta by following the uterus down with the hand upon the patient's abdomen, according to the expression and the method of the Dublin school, as the foetus is expelled, thus keeping the hand upon the uterus at least as a sentinel to warn of uterine

relaxation, and, better still, as a stimulus to, and a reinforcement of, uterine retraction. A general observance of this practice reduces to a minimum cases of post-partum hemorrhage, of delay in the discharge of the placenta, and of hour-glass contraction.

And now, coming to the practical point of more direct interference with the third stage of labor, what circumstances demand it, and how is it to be made?

I believe the teaching of the Philadelphia school has been favorable to early interference: at least such delay as shown by the Strasburg statistics would not have been allowed by her great teachers. Dr. Hodge advised moderate traction upon the cord at the end of half an hour or of an hour; and Dr. Meigs stated that he never waited for the spontaneous extrusion of the placenta more than an hour and a half, for he always supposed that if it would not take place in one hour there was little prospect for its taking place in twenty-four hours. Now, with all reverence for the names of these great men, and with, I trust, due personal humility, it seems to me their teaching was wrong. Even moderate traction upon the cord, if the placenta be attached, is liable to do harm, and traction is not necessary to find out whether it is detached. The statistics quoted prove that one cannot make a time-table for nature in regard of placental delivery: she may effect that delivery long after Dr. Meigs's hour has passed.

As long as the placenta is wholly attached, hemorrhage is impossible; the placenta is still a living structure, and one with the uterus; to tear it loose, to directly detach it from the uterus, opens the way for perilous hemorrhage. Not only this, but such artificial detachment is usually incomplete, is liable to injure the uterine tissue, and the operator's hand may be the bearer of septic germs, or these may pass in with the air admitted during the manipulation, and find a congenial soil for their development in fragments of placenta, or blood-clots that are retained in the uterus. Therefore, unless hemorrhage demands immediate interference, the obstetrician refrains from passing his hand into the uterine cavity for the removal of an attached placenta; a completely adherent placenta is not so dangerous as the intra-uterine use of the hand for its detachment. I believe, then, that armed expectation is wise in the latter case, only endeavoring, by suitable compression of the uterus with the hand acting through the abdominal wall, to determine or assist that retraction of the organ which is nature's method of separating the placenta. After the detachment of the placenta,—a fact which is best learned by feeling a part of the organ with the finger passed into the mouth of the womb,—we may, by friction and compression of the uterus, if needed, evoke uterine contractions which



will cause its expulsion. Those who believe that the placenta presents its foetal surface at the os uteri, urge the value of moderate and continuous traction upon the cord, thus assisting the moulding of the mass to the orifice through which it is to come. This conservative view as to the management of so-called retained placenta has been strongly presented by Siredey in his recent work upon puerperal diseases. The common expression, retention of the placenta, means very different conditions, each requiring its appropriate treatment.

Passing now to another topic, the relation of acute infectious diseases to the pregnant or to the puerperal state. The history of the three months furnishes two cases of measles in pregnancy, and one of scarlet fever in puerperality. A report of the latter will appear in the next number of the *American Journal of the Medical Sciences*, and therefore is not presented here. In both the cases of measles the eruption did not appear until after labor, but in each the interval was so short that the disease was present in pregnancy. In one case the disease had no evident effect upon pregnancy, and the puerperal period was normal. But in the other I believe premature labor was caused by the disease, for, though no accurate or definite information could be had from the mother as to when the pregnancy began,—she was half idiotic,—the child was small and feeble, imperfectly developed. Abortion or premature labor is the result in the majority of cases when measles occur in pregnancy. The second patient had septicaemia, but, even with this complication, and though quite ill, made a perfect recovery.

Puerperal temperature is a subject of importance, to which brief reference will now be made. I have here a temperature chart made by Drs. Phillips and Randall from the charts of twelve women in whom puerperal convalescence was undisturbed; the chart includes eight days of the puerperal period. The highest temperature was on the fifth day, and then it was only  $98\frac{1}{2}^{\circ}$ .

Temperature record from two daily averages of twelve cases of normal recovery from labor. The first temperature is that of a woman delivered within the preceding twenty-four hours:

Morning . .	98.4	98.4	98.2	98.2	98.2	98.4	98.0	98.2
Evening . .	98.8	98.8	98.8	98.4	98.9	98.8	98.4	98.4

There were opportunities for observing the influence of apparently trifling causes in producing marked elevations of temperature. Thus, one patient, whose condition was normal, insisted upon getting up the fifth day and dressing herself; she did so, notwithstanding the remonstrance of the nurse, and her temperature rose to a little above  $100^{\circ}$ . Either from feeling badly, or possibly from the moral influence of the thermometer, she was willing to return to her bed. Another

patient, doing well apparently, save that her temperature was  $100^{\circ}$ , got up the fourth day; her temperature rose to  $103^{\circ}$ ; she returned to bed; her temperature in a few hours was only  $100^{\circ}$ , and in two days was normal. In another case an irritant cathartic, or that which proved to be such, the bitartrate of potassium, was given the fifth day, and for a short time the patient's temperature was nearly  $105^{\circ}$ , but the next day it was normal. On the other hand, the gravity of a case may be much greater than the temperature indicates. Thus, in a patient with fatal septicaemia the temperature during the first five days only once rose as high as  $101^{\circ}$ , a part of the time was only  $99^{\circ}$ , on the sixth day rose to  $102\frac{1}{2}^{\circ}$ , on the seventh fell to  $101^{\circ}$ , and then on the morning of the eighth was  $103\frac{1}{2}^{\circ}$ ; she died that day. In the abstract of a paper by Dr. Angus Macdonald (*British Medical Journal*, May 10), the statement is made that in some of the worst and most rapidly fatal cases of septicaemia the temperature never rose over  $101^{\circ}$ , if so high. The explanation given was that the vital centres were attacked with such a quantity of poison that death occurred before the tissue-changes ending in heat took place. Dr. Macdonald further referred to the important difference in the course of temperature in lymphatic and in phlebotic septicaemia, there being in the former a single rigor with sudden and continuous high temperature, and in the latter a series of successive rigors followed by corresponding depressions. Siredey had previously remarked that a temperature chart of a patient having puerperal septicaemia will readily show whether the disease is the lymphatic or the phlebotic form. When Oslander, at the beginning of the present century, and others since him, described remittent puerperal fever, doubtless they had under observation cases of phlebotic septicaemia. I am sure these sudden and marked declines of temperature have led practitioners into false diagnoses, especially since attention was redirected by two distinguished American physicians to the occurrence of malarial fever in child-bed: we would much rather believe a patient had this disorder than septicaemia, and such desire may assist the diagnostic error, an error I know that I have committed, and I have more than once witnessed its commission.\*

The occurrence of a chill at the onset of septicaemia is by no means a constant phenomenon. While Dr. Macdonald refers to a chill marking the advent of lymphangitis, Siredey regards it as always present in phle-

\* If any one should doubt the difficulty sometimes presented in diagnosing between septicaemia and malaria in child-bed, he may be referred to a lecture delivered by Prof. Luigi Mangiagalli upon malaria in its relation with the puerperal state, *Annali di Ostetricia, Ginecologia e Pediatria*, 1883. In this lecture Mangiagalli remarks that in the puerperium the diagnosis between septicaemia and malarial infection is not always easy,—that the difficulty may be most grave, almost insuperable.



bitis, usual but not invariable in lymphangitis; it is multiple in the former, single in the latter. The cases observed at the hospital show that a chill was not constant in septicæmia, even in a fatal form of the disease. While we may in some cases, by the great variations in temperature, be able to diagnose between septicæmic phlebitis and lymphangitis, there are decided oscillations in temperature observed in the latter, though much less than in the former; and, besides, some cases present the combined forms, lymphatics and veins alike affected. There is herewith presented the temperature chart of a patient who suffered with what I at the time believed to be lymphatic septicæmia, and yet the reading of the chart might justify the conclusion that the disease was phlebitic, though early in its manifestation.

Bertha Lambert, aged 25; puerperal septicæmia:

DATE.	PULSE.		DAY OF DISEASE.	TEMPERATURE.	
	Morning.	Evening.		Morning.	Evening.
5	...	88	1	...	99.0
6	64	84	2	98.5	98.7
7	64	112	3	98.6	103.0*
8	96	84	4	100.0	106.0†
9	100	85	5	100.0	100.5
10	102	114	6	101.7	101.4
11	96	110	7	99.8	100.8
12	100	100	8	102.4	102.4
13	96	96	9	102.8	101.8
14	98	102	10	98.6	100.5
15	80	96	11	97.7	99.4
16	84	98	12	99.4	99.8
17	84	85	13	98.0	99.0
18	88	77	14	97.8	98.7
19	74	72	15	98.0	98.2
20	80	86	16	99.6	100.0
21	73	78	17	100.0	100.4
22	72	85	18	98.4	99.0†
23	76	68	19	98.1	98.8
24	72	97	20	98.4	98.9
25	82	87	21	99.5	99.2

Looking at it, one sees that the temperature was normal until the morning of the third day, when the first chill occurred; at that time it rose to  $103^{\circ}$ ; the next day a chill in the evening, and the mercury marked  $106^{\circ}$ , but fell the next morning to  $100^{\circ}$ ; the next most marked difference was observed on the ninth and tenth days,—the evening of the former it was  $101\frac{1}{2}^{\circ}$ , the next morning  $98\frac{3}{4}^{\circ}$ . I show a second temperature chart of a patient whose temperature was under  $100^{\circ}$  until the fourth day; was  $104\frac{3}{4}^{\circ}$  the seventh day, dropping to  $99\frac{3}{4}^{\circ}$  the eighth day; reached  $105^{\circ}$  on the eleventh day, the twelfth only  $101\frac{3}{4}^{\circ}$ ; and who had, in the course of her illness, at least two chills.

Kate Fleming, aged 22, puerperal septicæmia:

DATE.	PULSE.		DAY OF DISEASE.	TEMPERATURE.	
	Morning.	Evening.		Morning.	Evening.
10	88	88	2	98.0	98.0
11	90	92	3	98.9	98.0
12	82	84	4	98.2	99.6
13	108	104	5	100.6	102.2

\* Chill at 3 P.M.

† Chill at 7 P.M. Pulse before chill; temperature afterwards.

‡ Child died of pneumonia.

DATE.	PULSE.		DAY OF DISEASE.	TEMPERATURE.	
	Morning.	Evening.		Morning.	Evening.
14	96	112	6	101.5	103.0
15	124	106	7	104.4	102.8
16	81	90	8	99.6	103.3
17	80	88	9	100.4	101.8
18	74	88	10	99.2	101.2
19	116	120	11	103.0	105.0
20	104	98	12	101.4	101.3
21	90	106	13	103.0	101.3
22	94	112	14	100.3	104.0
23	98	98	15	100.8	100.2
24	84	82	16	99.0	98.8
25	93	87	17	97.2	98.8
26	79	72	18	98.0	98.2
27	67	70	19	97.8	97.4
28	63	78	20	97.2	98.2
29	80	62	21	98.0	98.5
1	64	72	22	97.6	98.4
2	66	92	23	97.8	99.3
3	80	...	24	97.0	.....

The cases of septicæmia were too few, and the discrimination between lymphangitis and phlebitis not always made, to permit me to give a positive opinion; nevertheless, it seems to me probable that in lymphangitis the oscillations of temperature are always such that the thermometer marks a higher degree in the evening, while in phlebitis the highest temperature occurs quite as often in the morning as in the evening.

Returning to the subject of normal temperature in puerperality, it will be seen from the chart presented that the temperature of the third was no higher than that of the first or of the second day. In looking at a temperature chart given by Dr. Macdonald (Edinburgh Obstetrical Transactions, vol. vi.), taken as the result of observing the temperatures of thirty women, I find the highest temperatures the third, fourth, and seventh days; the thermometer registered  $99\frac{1}{2}^{\circ}$  the third day, and  $99\frac{1}{2}^{\circ}$  the fourth and seventh days.

Tarnier remarks that momentary elevations of temperature do not generally involve an unfavorable prognosis; but when they are progressive and continuous, especially when the thermometer placed in the axilla goes above  $100\frac{1}{10}^{\circ}$ , some complication is to be feared.

One of the subjects delivered at the hospital had a slightly subnormal temperature. She was a girl, eighteen years of age, who, three hours after a normal labor, had a temperature of  $99^{\circ}$ ; this fell so that on the third day it was only  $98^{\circ}$ , and so continued for a week. During a part of this time her pulse was 56, and even only 48.

The presence of albumen in the urine of the pregnant woman has often, even generally, engaged the attention of obstetricians; but comparatively little concern is usually shown as to its presence during labor, or in the puerperal state. Possibly it may be quite as important to examine the urine of the lying-in as of the pregnant woman, especially if she has had even slight septicæmia.

But, first, how frequent is albuminuria in pregnancy? In seventy-two pregnant women albuminuria was found in five. It will be observed that this proportion is very much less



than that given by Charpentier,\* quoting Dumas, who, combining the statistics of several observers, makes the proportion one to five or six. It seems to me, both from hospital statistics and from observations in private practice, this proportion exaggerates the frequency of the accident.

By the albuminuria of labor is understood not only the disorder as occurring during labor, but also that of the two or three days immediately preceding. This is very much more frequent than the albuminuria of pregnancy; but the cases examined with reference to this point were too few to determine the proportion.

Seven of the seventy-two women had albuminuria after labor; I think the number was much greater, but some of the women suffering with septicæmia did not have the urine examined until after convalescence, and the results of examinations made in others were not properly kept, or at least were not placed in my hands.

In three of the seven mentioned the albuminuria was slight and transient. In four women convalescing from septicæmia, the urine was found to be albuminous one month after delivery. Two had pus, blood, and hyaline casts in the urine; in a third, no pus, but blood and casts were present in the urine; as to the urine of the fourth, the microscopic appearances were not noted. In regard to two of these patients, I know that the catheter was first used after their being brought from the "fever" to the "convalescent ward," and therefore the explanation which Olshausen has suggested of the renal disorder fails in these cases; catheterism had nothing to do with its causation. In explanation of these cases, it is probably better to accept the teaching of Siredey, who regards puerperal nephritis as a constant complication of uterine lymphangitis or phlebitis.

Women may apparently, but not really, recover after pregnancy and labor; especially if there has been septicæmia is there a liability of renal disorder becoming chronic, and it is only by actual examination of the urine that the integrity of the kidneys can be determined.

Mauriceau compares the pregnant woman just before labor to a ship that has been nine months tossing upon a rough sea, and urges the importance of not letting the ship sink as she enters the port of child-bed. It is not less the duty of the obstetrician to know that the ship has not suffered such damage on the ocean or in the port that she is unfit, without important repairs, to run the risk of another voyage.

Sugar in the urine of pregnant and of nursing women was first shown to occur by Blot in 1856. Differences of opinion hold as to the constancy of its presence in the conditions stated, as to its source and as to its character.

Macdonald found it in each of thirty-five cases whose urine was examined, and therefore regards it as present in all cases at some time or other of the puerperium. But neither Kleinwächter nor Spiegelberg refers to it as always present. In the examinations made daily of the urine of fifty women at the hospital (these examinations began a few days before, and continued seven days after, labor), four women had sugar in the urine before labor, and six after labor, one of the six being also one of the four. In this woman the sugar was constantly and largely present up to eight weeks after delivery; she had remarkably well developed mammary glands, and a most abundant secretion of milk. In this case Blot's suggested test for a good nurse—to wit, the quantity of sugar contained in the urine—would have proved true, so far as abundance of milk was concerned.

It has been shown that abrupt suppression of nursing causes the appearance of sugar in the urine: thus it is commonly observed in mammary abscess.

The fact that removal of the mammary glands in an inferior animal recently delivered causes disappearance of sugar from the urine, proves that it is incorrect to call the cases where sugar is found in the urine in pregnancy or child-bed, cases of glycosuria, but rather of lactosuria, unless we attach only the literal meaning to the first word in the compound glycosuria. Spiegelberg refers to the condition as an absorption diabetes; and this seems the opinion of most authorities. Tarnier, however, regards as very plausible the hypothesis that the sugar eliminated by the kidneys was sugar made very probably by the liver in view of the lacteal secretion, and which was not utilized in consequence of the momentary suppression of this function; further, he thinks new researches necessary, in addition to those of Hofmeister and others, to determine the question as to whether this sugar is glucose or lactose.

Whenever there is an exact correspondence between the milk-supply and the demand, the former not being in excess of the latter, it is probable sugar will not be found in the urine; I think, therefore, that the experience of Macdonald—showing saccharine urine in all cases of lying-in-women—is not the law.

An interesting case of secondary puerperal hemorrhage occurred, interesting as to its etiology, and instructive as to the means by which it was finally arrested.

The following is the history as given by Dr. Voorhees, the *interne* who had charge of the patient:

A. A., German, single, primipara; varicose condition of veins of lower limbs, this condition disappearing after labor. Labor at full term, March 5, 1884, lasting a little over twelve hours. Her condition was perfectly satisfactory up to the evening of the eleventh day after confinement; on that day she was trans-

\* *Traité des Accouchements.*



ferred to the convalescent ward, and then saw the out-door agent as to keeping the father of her child in prison for refusing support. She was greatly distressed by this interview, and at 4.30 the next morning hemorrhage began. Digital examination showed that the blood came from the uterus; the os was high up, flabby, and full of clots; the uterus was as large as if delivery had just occurred, and was soft and relaxed. Ergot was given, the child applied to the breast, the uterus was emptied of its clots, and friction used to stimulate contraction, but the bleeding still continued. Ice was then used to the abdomen and in the vagina; the bleeding was not stopped. Hot water was then freely thrown into the uterus, and the result was prompt and satisfactory. The patient made a good recovery. Although the uterine discharges were carefully examined, at no time was there any organized material found, nothing in the least indicating that this hemorrhage was caused, for example, by the retention of a placental fragment.

Those who have read Dr. Fordyce Barker's admirable lectures upon puerperal diseases will remember the graphic description of a case of secondary hemorrhage the second day of lying-in, caused by an emotional cause, and in what perilous condition the poor woman was for some days. So, too, in the hospital case we have an example of hemorrhage from a psychical cause. Believe or doubt as we may, say what we will, there are at times in medical practice just such sudden, startling, and strong proclamations of something more than flesh and blood in this human nature, telling us that the coarse material may be prostrated through the finer spiritual, the psychical assert its power over the physical.

Further, as to this case, the great value of hot-water injections for the arrest of uterine hemorrhage never had a more striking illustration.

The final subject presented to you is that of uterine rupture. In reflecting upon the history of my three months' service, no event occurred in my duties to these unfortunate women—women often worthy of the profoundest pity as the victims of misfortune and of man's perfidy—which causes me greater sorrow, in silence or in recital, than a case where the uterus was ruptured in consequence of a shoulder presentation, a case which ended in death the eighth day after delivery. Yet I would fail in duty to my profession, that has been so good, so generous to me, if I did not make the case fully known. The patient was a well-formed, healthy multipara; she had been in labor nearly twelve hours when I first saw her, the left shoulder presenting. Ether was immediately given until she was thoroughly under its anæsthetic effect; and then, without violence, nay, with great ease, I passed two fingers behind the right knee, brought the

foot down, and turning and delivery were effected in a few minutes; the placenta followed almost immediately; the child, quite a large one, was dead. The patient came out from the anæsthesia satisfactorily; her pulse was good; there was no complaint, no shock, no great hemorrhage. Yet that woman had a ruptured womb, the tear beginning at the os uteri on the right side, involving the cervix and the lower part of the body of the uterus, this condition being made known by the post-mortem. If it be thought I ought to have known this accident at the time of delivery, I can only say that like ignorance happened to Dubois, to Hervieux, to Tarnier, and others,—the first revelation of the uterine rent being made at the post-mortem. These silent tears of the womb are, as Hervieux has suggested, probably more frequent than generally thought. No, my self-reproach is not in this, but in not having made, myself or by another, an examination during pregnancy, so that the abnormal presentation could have been corrected, if not then, at least early in labor. But let this pass. The great practical lesson to be drawn from the accident is not only the importance of an early rectification of a mal-presentation, but also an appreciation of the danger of rupture of the uterus and how this accident occurs. The drawing now shown gives the position occupied by the child, and also and especially gives the change in form and thickness of the two cavities of the uterus, which, as so admirably described by Bandl, are formed when nature is unable to overcome the obstacle to labor found in such case. The one cavity is formed by the body of the uterus, and its walls become thicker and stronger; the other, by the cervix, and its walls grow thinner,—become, indeed, so attenuated and weak that a very slight additional strain causes a tear at some point; that strain may come from a uterine contraction, or solely from the introduction of the finger; and thus peril from action, peril from delay, must be before the obstetrician's mind when called to a case of neglected shoulder presentation.

Of course, had I seen this patient an hour or two earlier the event might have been different. The pressure of the presenting part had been so severe that a slough of the vesico-vaginal wall occurred, and the patient, had she recovered, would have required an operation for the resulting urinary fistula. I have thought that possibly the uterine rent was in part the result of a slough also; but, be this as it may, there was not the slightest indication given at the post-mortem that any hemorrhage in the abdominal cavity had taken place.

One other topic I had designed presenting,—the prophylactic treatment of puerperal septicæmia; but my paper has already occupied enough, possibly too much, of your time.



## REVIEWS AND BOOK NOTICES.

THE EXTRA PHARMACOPEIA OF UNOFFICIAL DRUGS AND CHEMICAL AND PHARMACEUTICAL PREPARATIONS. By WILLIAM MARTINDALE, F.C.S., etc. With References to their Use, abstracted from the Medical Journals, and a Therapeutic Index of Diseases and Symptoms, by W. WYNN WESTCOTT, M.B. London. Second Edition. London, H. K. Lewis, 1884. Morocco, small 8vo, pp. 330.

On account of the delay in the publication of a new edition of the British Pharmacopœia, it has happened that a large number of drugs which have occupied the attention of therapeutists and clinicians are only to be found in the medical journals and original sources. Many of the remedies introduced within the last fifteen years have come into common use by the profession, and the *raison d'être* in England of such a work as the one before us is very evident; and, although the United States Pharmacopœia has been recently issued, there will be found by physicians on this side of the Atlantic in its pages much interesting and useful information with regard to new remedies not official as yet in any pharmacopœia.

The book is almost entirely devoted to a consideration of new drugs and remedies, arranged alphabetically, with their preparations, and brief suggestions as to their therapeutic employment, with references to original sources in recent text-books and journals. There are also a posological table and a good therapeutic index of diseases, which form an appendix to the body of the work.

As evidence of the usefulness of this work, it may be stated that the first edition was exhausted in a few weeks. An examination of its pages will be sufficient to show that its popularity is merited. Although small in size, we have found it a valuable work of reference.

MANUAL OF GENERAL MEDICINAL TECHNOLOGY. By EDWARD CURTIS, A.M., M.D., Professor of Materia Medica and Therapeutics, College of Physicians and Surgeons, Medical Department of Columbia College in the City of New York. New York, William Wood & Co., 1883. Cloth, 16mo, pp. 234.

This little work comprises the lectures of the author upon medical technology, and especially prescription-writing, from his course on Materia Medica and Therapeutics. It is divided into two parts. Part I., The Technology of Medicines, consists of the Authority for Medicines, the Naming of Medicines, the Forms of Medicines, the Determining of the Quantities of Medicines, and the Prescribing of Medicines. Part II., or the Technol-

ogy of Medicating, contains a discussion of the Modes of Medicating and Dosage. The work is arranged in lecture-form, and presents in agreeable style and in a condensed form much information upon subjects that physicians are too often deficient in. The terminology of the last edition of the Pharmacopœia is followed. The instructions and suggestions as to prescription-writing are supplemented by a table of the genitives of Latin nouns for use in prescribing. An exposition of the metric method is also to be found in this little work, which is superior to most hand-books in design and execution.

ARZNEIVERORDNUNGEN DER TÜBINGER KLINISCHEN ANSTALTEN, etc.

[Pharmacopœia of the Tübingen Clinic. The Physical Properties, Physiological Action, Application, Dosage, and Formulæ of the Remedies used in the Clinical Institute of the University of Tübingen. Published by FR. KELLER, M.D., First Assistant Physician in the Poliklinik of the University at Tübingen. Tübingen, Franz Fues, 1883. 8vo, cloth, pp. 161, interleaved. Price, 4 marks.]

In this little work, arranged alphabetically, there are considered a large number of official and unofficial (Ph. Germ.) drugs, with the modes of combination which have been found most useful at the Tübingen School. The titles are in Latin, followed by the German synonyms. A description of the physical and chemical characters is then briefly given, to which is appended the physiological action or medical application, with prescriptions and dosage. At the end of the volume is a list of the legal prices for drugs, and a table of maximum doses of poisons. The material of this work is well digested, and it contains much that is of value in small compass. For German readers and those who intend studying in Germany this book will prove both convenient and useful.

QUARANTINE AND SANITARY OPERATIONS OF THE BOARD OF HEALTH OF THE STATE OF LOUISIANA DURING 1880, 1881, 1882, AND 1883. By JOSEPH JONES, M.D., President of the State Board of Health of Louisiana. Introduction to the Annual Report of the Board of Health to the General Assembly of the State of Louisiana, 1883-84. Baton Rouge, 1884. Pp. 393.

The greater part of this valuable report is devoted to the measures for the prevention and arrest of endemic, epidemic, contagious, and infectious diseases, those which engaged the most attention of the health authorities being smallpox and yellow fever. A sketch of the history of quarantine in Louisiana is among the valuable papers contributed by Dr. Jones.

The labors of the Board of Health of the State of Louisiana during the years named



have apparently demonstrated the truth of the following propositions:

1. Yellow fever is not indigenous to New Orleans, Louisiana, or the Mississippi Valley.

2. Yellow fever can be excluded from New Orleans and the Mississippi Valley by a rigid and effective quarantine.

3. Quarantine to be effective must embrace not merely inspection and detention, but discharge of infected cargoes, thorough ventilation, and fumigation.

The report of Dr. Jones upon smallpox is not only a model of brevity, but also a conclusive defence, if any were needed, of the value of prompt disinfection, isolation, and vaccination in preventing an outbreak of smallpox. Its lessons might well be studied by health boards nearer home.

**STUDENT'S MANUAL OF ELECTRO-THERAPEUTICS.** Embodying Lectures delivered in the Course on Therapeutics at the Women's Medical College of the New York Infirmary. By R. W. AMIDON, A.M., M.D. G. P. Putnam's Sons, New York, 1884. 12mo, pp. 93, cloth.

This handsomely-printed manual is intended to give in plain language, divested as much as possible of technicalities and mysticism, as much of the subject of electrophysics as is necessary to the proper understanding of the construction and use of medical batteries, to point out the commoner gross physiological effects of electricity, to outline the methods of electro-diagnosis, and to determine the proper kind of electricity and its mode of application in different morbid states. The manual is illustrated, and is carefully and clearly written, and it is not burdened by reports of wonderful cures obtained in the practice of the author, which usually form the greater portion of the bulky treatises upon this subject. We think this manual a good introduction to the more systematic works on the subject.

**MEDICAL GERMAN.** A Manual designed to aid Physicians in their Interchange with German Patients and in reading Medical Works and Publications in the German Language. By SOLOMON DEUTSCH, A.M., Ph.D. New York, J. H. Vail & Co., 1884. 12mo, pp. 346. Cloth, \$2.25.

The manual, whose scope is well set forth in its title, is a welcome addition to the reference-library of those who are not thoroughly familiar with German. The text is divided into a vocabulary arranged under different subjects, anatomical, nosological, and therapeutical (including appliances of surgery, articles of diet, clothing, furniture, etc.). The second division consists of clinical conversations of a highly useful character, and the German and English indexes, containing about fourteen thousand words.

Great care and accuracy have been called into service in preparing these lists and conversations, but occasionally there is a want of uniformity that might be confusing to a beginner. *Unwohl* is translated on page 158 as "uncomfortable" and in the very next line is rendered "ill"; at the bottom of the page *Ja, sehr*, is given as the equivalent of "Yes, I perspired profusely." *Uebelkeit* (*nebelkeit*?) would be expressed better by its synonyme "nausea" than by "rising of the stomach," which might be due to pregnancy. *Die weibliche Brust* would be better translated by "the female breast," or "mammary gland," than by the "teat," which is elsewhere given correctly as the equivalent of *Brustwarze*. The verb *schnaufen*, to "breathe strongly," is a useful one in physical examination of the chest, and might be introduced in a subsequent edition,—which will undoubtedly be called for, since the work is one which only needs examination to demonstrate its usefulness and value.

F. W.

## GLEANINGS FROM EXCHANGES.

**SEA-WEED, AND ITS ECONOMIC APPLICATIONS.**—Mr. Ed. C. C. Stanford recently read before the Society of Arts, London, a paper on the constituents of sea-weed, *Laminaria stenophylla*, and their practical applications.

The glairy, colorless juice of the plant contains calcium, magnesium, and sodium, in combination with a new acid, called by the author *alginic acid*. This new substance is so abundant in the plant that, on maceration for twenty-four hours in sodium carbonate in the cold, the plant is completely disintegrated; the resulting viscid mass consists mainly of cellulose and sodium alginate, the latter being separated by filtration through linen; the acid may now be separated by precipitation upon the addition of hydrochloric or sulphuric acid. The flocculent precipitate may then be collected and pressed into a cake like cheese, and can be kept for any length of time in ordinary cool drying-rooms. The algin can be sent out in this state, or can be dissolved in some alkali, preferably the bicarbonates, to form the corresponding alginate. The sodium alginate forms a thick solution at two per cent. Its viscosity is extraordinary, being fourteen times as great as that of starch, and thirty-seven times that of gum arabic, thus making it of especial value in the arts and manufacturing, as substitutes for those substances for sizing fabrics, for pharmaceutical purposes (emulsions, troches, capsules, etc.). It may also be used to prevent or dissolve boiler-incrustations, and also for boiler-covering. As an article of food (the chemical composition of algin being carbon 44.39, hydrogen 5.47, nitro-



gen 3.77, oxygen 46.37) it might be adaptable, as it contains about as much nitrogen as Dutch cheese, and would probably be a useful addition as a thickening to soups or puddings, or as a basis for preserved fruits and jams in place of apple-jelly, which is a common ingredient in their manufacture on a large scale. The principal use of the new substance will probably be as a mordant, the demand for which is enormous. The supply of raw material is practically unlimited, and the author recommends that it should be imported in the raw state. The above manipulation does not interfere with the extraction of iodine and bromine from the watery solution: thus, by extracting the algin and cellulose the entire plant is utilized.—*American Druggist*, August, 1884.

#### THE ACTION OF BACTERIA ON STARCH.—

In a communication by J. Wortmann (*Journal of the Chemical Society*) are detailed the results of some experiments made upon the influence of bacteria upon starch, which are of some interest from a medical stand-point as possibly throwing some light upon the mode of action of so-called pathological bacteria. In his work, "Ueber die niederen Pilze," Naegeli referred to the secretion by these low organisms of a special ferment capable of changing milk-sugar into fermentescible sugar, and starch and cellulose into glucose, and of dissolving coagulated albumen and other albuminates; and Sachse also alludes to the circumstance of starch solution undergoing no change so long as it is protected from the influence of organic germs, by which, otherwise, it quickly undergoes transformation. The following are Mr. Wortmann's conclusions:

1. Bacteria are capable of acting on starch, whether in the solid state, as paste, or in solution, in a manner analogous to diastase.
2. As in the case of diastase, different kinds of starch are attacked by bacteria with different degrees of rapidity.
3. The action of bacteria on starch is manifested only in the absence of other sources of carbon nutriment, and when access of air is not prevented.
4. The action of bacteria on starch is affected by a ferment secreted by them, and which, like diastase, is soluble in water, but precipitable by alcohol.
5. This ferment acts precisely as diastase in changing starch into a sugar capable of reducing cupric oxide, but is not possessed of peptonizing properties.
6. The ferment itself is also capable of acting on starch in the absence of oxygen.
7. The ferment is secreted by the bacteria also in neutral solution of starch, and exerts its influence under these conditions.
8. This influence is expedited in slightly acid solutions.

The author concludes his paper with speculations as to the conditions under which

bacteria are capable of generating this amyolytic (diastatic) ferment, instead of the ordinary peptonizing one.—*American Druggist*.

**MICROCOCCLUS XANTHOGENICUS.**—Recent experiments made by Messrs. Mozly and Harrison have served to throw discredit on the conclusions of Dr. Freire. Investigations were made with soil taken from the graves of persons who died of yellow fever in the epidemic of 1881, and also with material from the graves of those dead of other diseases, as well as from open fields on which no manure had been used. Previously sterilized chicken-soup impregnated with any of these moulds and kept at the ordinary temperature usually became turbid in a few hours, and by the second day assumed a bright-yellow color, especially on the surface, the color being most evident in the case of a soil from a yellow-fever grave and one from an open field. These appearances were not met with when the soil used had been taken from yellow-fever graves where a layer of lime had been placed above the coffin. The colored liquids, although swarming with bacteria, were injected into guinea-pigs without producing any symptoms as a rule, and certainly none which could be referred to yellow fever. Similar negative results were obtained when decomposing matter was used from the coffin of a person who had died of the disease, the guinea-pigs in such cases apparently dying of simple septicæmia, no bacteria being detected in the blood, the corpuscles of which were considerably disintegrated, and there was no albuminuria. When the "moulds" were cultivated at 98.5° F., the liquid acted much more virulently; but the symptoms were still those of blood-poisoning, and not of yellow fever, the absence of micro-organisms in the bodies examined immediately after death being certified.—*Lancet*.

#### MISCELLANY.

**AMERICAN PUBLIC HEALTH ASSOCIATION.**—The twelfth annual session of the Association will be held on Tuesday, Wednesday, Thursday, and Friday, October 14-17, 1884, at St. Louis, Missouri. The following topics will be presented for consideration:

1. Hygiene of the Habitations of the Poor.
2. Hygiene of Occupations.
3. School Hygiene.
4. Adulteration of Food.
5. Water-Pollution.
6. Disposal of Sewage by Irrigation or Chemical Action.
7. The Observable Effect upon the Public Health of Official Sanitary Supervision.
8. The Work of Municipal and State Boards of Health.

Persons intending to present papers on any



of these subjects are requested to notify the Secretary at once, and to furnish him with a condensed abstract of the same not later than September 1. Members desiring to participate in the discussion of these papers are also requested to inform the Secretary.

It is requested that the complete papers shall be in the hands of the Secretary at least three days prior to the meeting, as all papers must be examined by a committee before being read. They may be sent by mail or express to the Secretary at his office prior to the 1st of October, after which date to his address at St. Louis, Missouri, care of Dr. Joseph Spiegelhalter.

Active and associate members have equal rights and privileges in the presentation and discussion of papers.

Extensive preparations are now under way for making this the largest meeting that the Association has ever held, and the committee urge the attendance and co-operation of persons in all trades and professions interested in the advancement of public health and general sanitary science.

A circular giving full and concise information regarding local matters, programme, transportation, etc., will be issued in due season before the meeting.

All inquiries of a local character should be addressed to Dr. Joseph Spiegelhalter, Chairman of Committee of Arrangements, St. Louis, Missouri.

The officers of the Association are—President, Dr. Albert L. Gihon, U.S. Navy, Washington, D.C.; First Vice-President, Dr. James E. Reeves, Wheeling, West Virginia; Second Vice-President, Honorable Erastus Brooks, Richmond, New York; Secretary, Dr. Irving A. Watson, Concord, New Hampshire; Treasurer, Dr. J. Berrien Lindsley, Nashville, Tennessee.

**THE INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.**—Anticipating a fuller account of the proceedings by mail, we will merely notice that, in spite of the cholera, and the proposition to adjourn the Congress until next year on account of the epidemic in France, the session was opened on August 10, according to programme, and was largely attended. Prof. Panum, chairman of the Organizing Committee, delivered, in the French language, a brief but cordial address of welcome, and was followed by Sir James Paget, Virchow, and Pasteur. In the various Sections the regular exercises were also opened by addresses by the respective presiding officers. In effecting a permanent organization, Prof. P. L. Panum, of Copenhagen, was elected President, and Prof. C. Lange Secretary-General. Among the honorary presidents representing different countries were Dr. John S. Billings, U.S.A., and Prof. Austin Flint, of New York.

Prof. Louis Pasteur delivered an address on

“Preventive Inoculation for Hydrophobia,” in which he referred to the favorable report upon the subject by the Commission appointed to superintend a series of experiments by the French government, stating that twenty-three dogs which had been subjected to inoculation had been bitten by rabid animals in June, and yet all remain healthy; of nineteen unprotected animals similarly bitten, fifteen went mad. In closing, he stated that hydrophobia might be exterminated if all dogs could be similarly treated.

Prof. Tommaso Crudeli, of Rome, gave an account, at the general meeting on the second day, of the natural production of malaria, and the means for making malarial countries more healthy.

The entertainments provided afford abundant opportunity for acquaintance and social intercourse among the members: the members of the Sections are entertained at lunch daily by the chairmen of the Sections, and a dinner was given by Prof. Panum to a large number of the guests; an excursion upon the Sound was given, and the fourth day was devoted to an excursion to Elsinore. The invitation which was sent by the American Medical Association to hold the next session of the International Medical Congress in Washington, U.S., was favorably received, and, it is hoped, will be accepted.

As an instance of enterprise in American medical journalism, we are proud to notice that two medical journals—the *Medical Record*, of New York, and the *Medical News*, of Philadelphia—published cable despatches from Copenhagen, to which we are indebted for our early information of the successful inauguration of the Eighth Annual Session of the Congress.

**POISONOUS SOLDER IN CANNED GOODS.**—Dr. John G. Johnson, having had six cases of poisoning from the eating of canned tomatoes, read an excellent paper on the subject before the New York Medico-Legal Society, which is published in the *Sanitarian* for June. He concludes, after a careful review of the subject, that—

1. These were not cases of sickness from spoiled tomatoes.

2. They were cases of corrosive poisoning from muriate of zinc and muriate of tin.

3. This poisonous amalgam must be abandoned.

4. Exemplary damages, “at the discretion of the jury,” will be sustained by the courts for this reckless tampering with human life in using a dangerous means when a safe one could be used.

5. The canners have only themselves to thank for the present panic in their business, for they have persisted in the use of this dangerous amalgam, knowing it was dangerous.

6. Every cap should be examined, and, if two holes are found in it, send it at once to



the health board, with the contents and the name of the grocer who sold it.

7. Reject every article of canned food that does not show the line of resin around the edge of the solder on the cap the same as is seen on the seam at the side of the can.

8. "Standard" or first-class goods have not only the name of the factory, but also that of the wholesale house which sells them, on the label. "Seconds," or doubtful or "re-processed" goods, have a "stock-label" of some mythical canning-house, but do not have the name of any wholesale grocer on them. Reject all goods that do not have the name of the factory and also the name of some wholesale firm on the label.

9. A "swell" or decomposing can of goods can always be detected by pressing in the bottom of the can. A sound can, pressed, will give a solid feel. When gas from the decomposition of the food is inside the can, the tin will rattle by pressing up the bottom as you displace the gas in the can.

10. Reject every can that shows any rust around the cap on the inside of the head of the can. If housewives are educated to these points, then muriate-of-zinc amalgam will become a thing of the past, and dealers in "swells" have to seek some other occupation.

THE UNITED STATES MEDICAL COLLEGE, which has been doing a flourishing business in New York in the way of grinding out medical graduates, has had a quietus put upon it by the Court of Appeals in that State, a decision having been recently made declaring that the institution was never properly incorporated and had no right to issue diplomas. This decision is the result of a vigorous warfare waged on the college by the New York County Medical Society. What the result will be on the action of the college remains to be seen, but it is not unlikely that it will try to secure through the Legislature what has been denied it in the courts. An institution which turns out incompetent men to fill the ranks of the profession does not deserve any favors from the law-makers, and we trust it will not receive any.

A TRANSLATION into Russian of the sixth edition of Da Costa's work on Medical Diagnosis, recently issued at St. Petersburg, has just been received. The translators have apparently accomplished the work satisfactorily, and made some additions in the form of notes: the result is a handsome octavo volume of six hundred and seventy-two pages. This is a rare honor to an American medical book.

ATTEMPTED SUICIDE A FELONY IN PENNSYLVANIA.—In the case of a prisoner who recently attempted suicide by hanging in his cell, there being no statutory provision upon the subject in the laws of Pennsylvania, Judge Arnold decided that he could be held for trial for felony under common law.

## NOTES AND QUERIES.

### OBITUARY NOTICE.

JOSEPH JANVIER WOODWARD, M.D.—The death of Dr. Woodward, on the 18th instant, is an event for which his failing health for several years had prepared his friends, but the entire profession, of whom he was so eminent a member, will receive the announcement of his death with sorrow. He died at a sanitarium near Philadelphia, from some obscure disease of the nervous system.

Dr. Woodward was born in Philadelphia in 1833, and was graduated with honor from the high school in 1850, and in 1853 he received the degree of M.D. from the University of Pennsylvania. He then entered the army, where he distinguished himself in the Surgeon-General's office by his achievements with microscopic photography. He was the medical editor of the "Medical and Surgical History of the Rebellion," and was a valued contributor to medical journals. He was a member of a number of medical societies, and was elected President of the American Medical Association in 1881, although he was prevented by illness from attending the session.

### OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM AUGUST 3, 1884, TO AUGUST 16, 1884.

GIBSON, J. R., MAJOR AND SURGEON.—Granted leave of absence for one month and fifteen days. S. O. 36, Headquarters Division of the Atlantic, August 4, 1884.

BARTHOLOMEW, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Vancouver Barracks, Washington Territory, and ordered to take station at Portland, Oregon. Paragraph 1, S. O. 114, Headquarters Department of the Columbia, August 1, 1884.

HEIZMANN, C. L., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Columbus Barracks, Ohio, and ordered for duty in Department of the East. Paragraph 2, S. O. 180, A. G. O., August 2, 1884.

HEIZMANN, C. L., CAPTAIN AND ASSISTANT-SURGEON.—Ordered to proceed to Fort Ontario, New York, and report for duty. Paragraph 3, S. O. 163, Headquarters Department of the East, August 13, 1884.

KANE, JOHN J., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for one month. Paragraph 1, S. O. 160, Headquarters Department of the East, August 10, 1884.

MCCREERY, GEORGE, FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Leave of absence extended two months. Paragraph 4, S. O. 180, A. G. O., August 2, 1884.

HOPKINS, W. E., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted one month's leave of absence, with permission to apply for one month's extension. Paragraph 1, S. O. 67, Headquarters Department of Arizona, August 1, 1884.

LIST OF CHANGES OF STATIONS OF NAVAL MEDICAL OFFICERS FROM AUGUST 3, 1884, TO AUGUST 16, 1884.

Assistant-Surgeon J. S. SAYRE, ordered to U.S. steam-ship "Independence."

Medical Inspector E. BOGERT, to be fleet-surgeon, Asiatic Squadron.

Surgeon H. J. BABIN, detached from "Minnesota," ordered to Marine Rendezvous, New York.

P. A. Surgeon R. WHITING, detached from Marine Rendezvous, New York, ordered to Naval Academy as member of Examining Board.

Surgeon G. H. COOKE, ordered to Naval Academy as member of Examining Board.

P. A. Surgeon P. M. RIXEY, detached from special duty at Washington, ordered to U.S. steam-ship "Lancaster."

Surgeon T. WOOLVERTON, ordered to U.S. steam-ship "Minnesota."